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AUTHOR	Andrew, Dean C.; Roberts, Lawrence H.
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ABSTRACT

The purposes of the study were: (1) to compare the occupational achievement of vocational education graduates with that of nonvocational graduates, (2) to determine the number of graduates trained in the various vocational areas, and (3) to describe the group of students enrolled in vocational education courses. The study was limited to 1970 graduates of eight high schools in Arkansas. The data were collected by use of a mail-out questionnaire. Thirty-six percent of the sample of 1,749 returned completed questionnaires. Descriptive statistics were used to present characteristics of one-year and two-year vocational education graduates. Chi-square analyses were made comparing data and responses of the two-year graduates and a control group of nonvocational graduates. The following are some of the important findings. More two-year graduates than one-year graduates were employed full-time and in jobs in the same area as their training. More of the one-year graduates were unemployed. More one-year than two-year graduates were attending college. Also, the vocational education graduates had significantly higher achievement records in high school than the nonvocational graduates. (Author/NJ)

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A COMPARATIVE STUDY OF THE OCCUPATIONAL ACHIEVEMENT OF VOCATIONAL AND NON-VOCATIONAL HIGH SCHOOL GRADUATES IN THE STATE OF ARKANSAS

December 20, 1974

Prepared by:
Dean C. Andrew and Lawrence H. Roberts
of
Educational Planning and Evaluation Services
P. O. Box 589
Magnolia, Arkansas 71753

(VT 102 158)

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Abstract

The purposes of this study were: (1) to compare the occupational achievement of vocational education graduates with that of non-vocational graduates, (2) to determine the number of graduates trained in the various vocational areas, and (3) to describe the group of students who were enrolled in vocational education courses.

The study was limited to the 1970 graduates of eight high schools in Arkansas: Blytheville High School; El Dorado High School; Fayetteville High School; four Little Rock high schools: Hall, Metropolitan, Central, and Horace Mann High Schools; and Texarkana High School. The data were collected by use of a mail-out questionnaire. After try-out and revision, the questionnaire was sent to 1,749 of the 2,597 graduates from the eight schools. Thirty-six percent of the sample, (24 percent of the 1970 graduates), returned completed questionnaires.

Descriptive statistics, in numbers and percentages, were used to present characteristics of one-year and two-year vocational education graduates. Chi square analyses were made comparing data and questionnaire responses of the two-year vocational education graduates and a control group of non-vocational graduates. The following are some of the more important findings resulting from the study.

A. Occupational Activities of the One-Year and Two-Year Vocational Graduates

1. Sixty-four percent of the two-year vocational graduates returning questionnaires are employed full-time, compared to 46 percent of the one-year vocational graduates.
2. Almost 7 percent of the one-year vocational graduates returning questionnaires are unemployed, compared to only 3 percent of the two-year vocational graduates.
3. Twenty percent of the one-year vocational graduates are attending college; 12 percent of the two-year vocational people are in college.
4. Approximately two-thirds of the two-year vocational graduates took either Business or Trade and Inudstrial courses.
5. Thirty-three percent of the one-year vocational graduates and 48 percent of the two-year vocational people are presently employed in jobs in the same area as their training.

B. Comparison of Occupational Achievement of Two-Year Vocational Graduates and Non-Vocational Education Graduates

1. The vocational education graduates had significantly higher achievement records in high school than the non-vocational graduates returning questionnaires. No significant difference in the proportion of males and females was found, but a higher percent of white graduates in the vocational group returned questionnaires. Because of these differences in the two groups, caution must be used in the interpretation of all comparative data.

2. No significant differences were found in the present occupational status, such as working full-time, attending college, etc., of the vocational and non-vocational graduates returning questionnaires.
3. A significantly greater proportion of vocational education graduates are presently employed in the trade and industrial area than are non-vocational education graduates.
4. A significantly greater proportion of vocational graduates consider their present jobs related to their high school training than do non-vocational graduates.
5. A greater proportion of vocational education graduates expressed satisfaction with certain aspects of their present jobs than did non-vocational graduates. However, the differences are not statistically significant.
6. A greater proportion of vocational education graduates are earning $125.00 or more per week than are non-vocational education graduates. However, the difference is not statistically significant.

More detailed findings are summarized in Chapter VII. Also, conclusions and recommendations are presented at the end of that chapter.

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CHAPTER I

PROBLEM, PURPOSE, AND SCOPE OF STUDY

Introduction

In the past, the American tradition has placed greater value on academic education and achievement than on practical training in job skills. The idea was promoted that the only good education was one that ended with four years of college. The national attitude has been that vocational education is designed for someone else's children. This attitude has been shared by businessmen, labor leaders, school personnel, parents, and students.

The traditional attitude, however, is changing. It must. The number of unskilled jobs is declining each year; the number of jobs requiring a liberal arts college education is increasing less than the number requiring a technical skill. Fewer than 20 percent of the job opportunities in the 1980's will require a four-year college degree.

Vocational education, however, has also been a part of the American tradition. Since the Morrill Act of 1862 it has received federal encouragement at the college level. The National Vocational Education Act (Smith-Hughes) was passed in 1917, to provide grants to secondary schools. Since 1958, federal appropriations for vocational and technical education have been increased as never before. The Vocational Education Act of 1963 authorized appropriations of $60 million for fiscal 1964, $118.5 million for the 1965 fiscal year, and $225 million for each subsequent year.[1] The

Vocational Education Amendments of 1968 authorized appropriations of $335 million for fiscal 1969, $565 million for 1970, $675 million each year for 1971 and 1972, and $565 million for 1973.[2] Actual expenditures for the fiscal years 1967, 1968, and 1969 were $225.9 million; $230.4 million; and $227.5 million, respectively, exceeding somewhat the authorized $225 million per year for 1967 and 1968, but short of the $335 million authorized for 1969.

Some federal funds were also available from the Smith-Hughes Act and the George-Barden Act to contribute to the support of vocational education. In terms of actual expenditures, the grand totals were as follows:

1968 - $262.4 million
1969 - 254.7 million
1970 - 300.5 million

Although the federal funds have provided the stimulus, state and local matching funds for vocational-technical education in Arkansas have provided additional money for these programs. The total state and local expenditures for vocational and technical education in Arkansas were $6,173,211 in 1968; $6,752,709 in 1969; and $7,600,000 in 1970.

In Arkansas, a total of $10.5 million in federal funds were spent for vocational-technical education for the three fiscal years 1968, 1969, and 1970 combined. The matching funds from state and local sources amounted to 20.5 million for those same three years.

For the two fiscal years 1971 and 1972 combined, the expenditures for vocational-technical education in Arkansas amounted to $10.7 million from federal sources and $18.5 million from state and local sources. (For a complete listing of federal and matching funds for the United States and Arkansas, see Appendix A.)

The Accountability Issue

During the past few years, efforts have been made to apply the concept of accountability in the field of education. Since a large proportion of public funds are being used for education, concerned taxpayers and people with decision-making responsibilities have a right to ask about the results being obtained from the expenditures. If schools are to be accountable for results, a rational relationship must be established between costs and benefits.

Business and industry have always emphasized accountability. As the pressures for accountability in education have increased, vocational education has become a logical target. Increased amounts of money have been put into vocational education in establishing new programs, improving existing programs, and improving teacher training in vocational education. In response to the demands for accountability, the results of vocational education must be evaluated.

Statement of the Problem

Society has various goals and objectives; some are complementary to each other and some are competitive. Education, as one of society's institutions, has several goals, including: "(1) economic efficiency - achieving the maximum output for a given set of inputs, (2) immediate consumption and future consumption - the enjoyment of the process of education and the ability to achieve greater or more varied enjoyment in the future due to one's education, (3) equity - the realization of a more socially desirable distribution of wealth, and (4) socialization - the inculcation of socially desirable values and behavior."[3]

Ideally, it should be possible to conduct cost-benefit analyses to determine which programs provide the greatest benefits for the money spent. Such analyses contrast the costs and benefits of competing educational programs, to discover which is relatively more desirable, that is, which program results in the greater benefits for the amount of money put into it. However, since there are various goals of education, some of which cannot be measured in dollars, the matter is not that simple. There is no single index of benefits. Cost-benefit calculations are not sufficient to make decisions about investing public funds in vocational education. Even if cost-benefit analyses were a sufficient measure of the value of such programs, such evaluations have at least two disadvantages: (1) the cost is prohibitive, and (2) too many methodological issues remain to be refined; estimated measures of benefit are too crude.[4]

One of the best means of evaluating the results of vocational education is found in follow-up studies of the students who have graduated from various vocational training programs. Findings from such studies can provide feedback information to be used in the continuing process of improving vocational education programs.

In Arkansas, approximately 2,500 programs of a wide variety in vocational education are offered, in 310 secondary school districts, 15 post-secondary vocational-technical schools, 2 junior colleges, and 5 senior colleges.

More than 50,000 secondary school students each year have had vocational education training in high school. While some follow-up information on vocational graduates is available, there is not any comparative data to show whether their occupational achievement in the business and industrial world is any better than students who have not taken vocational education training. Such information is needed to evaluate our vocational education programs and to determine if the programs are fulfilling the goals for which they were organized.

Purpose of Study

The purpose of this study was to compare the occupational achievement of students who were enrolled in vocational education programs with the occupational achievement of students who were not enrolled in vocational education programs. Specific questions to be answered by the study were as follows:

1. What are the characteristics of the students who took vocational education training in high school?
2. How many different kinds of vocational education programs were taken by the graduates, and how many students participated in each program?
3. How do the students who took vocational education training compare with non-vocational education students on the following:
    a. Amount of earnings now being made
    b. Occupational level of present job
    c. Satisfaction with present occupation
    d. Number working in occupations for which they were trained
    e. Amount of post-secondary training completed
    f. Number of jobs held since graduation

4. How do vocational education and non-vocational education students rate their high school experiences?

Scope of Study

The study was limited to the 1970 graduates of the following target schools: (1) Blytheville High School, (2) El Dorado High School, (3) Fayetteville High School, (4) Little Rock Hall High School, (5) Little Rock Metropolitan High School, (6) Little Rock Central High School, (7) Little Rock Horace Mann High School, and (8) Texarkana High School. From these target schools the 1970 graduating seniors were the target class on which the follow-up study was based. The sample studied for comparison consisted of three groups of students from the target class. The vocational education graduates were divided into two groups--those with two semesters of vocational education and those with four semesters. The third group had no vocational education training.

Review of the Related Literature

In recent years many follow-up studies of vocational education graduates have been conducted. Some of the studies have compared vocational education graduates with non-vocational graduates in employment experiences and occupational success. Various criteria or indices of occupational achievement have been used.

Benson and Lohnes (1959), in an article which was extremely critical of vocational education, contended that vocational education does not increase individual productivity, that industry prefers academically-trained workers, and that vocational schools produce a defective product. Follow-up studies have repeatedly proven their biases to be inaccurate.

The North Atlantic Region collected impressive data over a period of six years prior to the enactment of the Vocational Education Act of 1963--data which were an important stimulant for federal legislation in vocational education.

Eninger (1965) collected follow-up data from a national sample of graduates of high school trade and industrial programs and non-college bound graduates of high school academic programs after two, six, and eleven years. Trade and industrial graduates took significantly less time to find their first full-time job after graduation, and experienced fewer periods of unemployment. They also experienced fewer job changes and obtained higher earnings after two and six years out of school when compared to academic graduates. By eleven years after graduation they had evened out. Eninger found that trade and industrial graduates and non-college bound academic graduates had similar interests, similar leisure-time activities, and organization affiliations.[5]

Several studies have revealed that the starting pay received by vocational education graduates was not significantly different from that received by non-vocational graduates, but that they had a longer time of employment and a higher degree of job satisfaction.[6]

Studies conducted by Olien and Donahue and Lane, reported by Little, suggest that community differences must be a relevant variable in the study of occupational achievement of high school graduates. Little also reports a number of studies which indicate that high school grades as a significant factor in occupational achievement should be considered.

The background of students, including educational and occupational level of parents, has been included in several follow-up studies. Studies by Kaufman and Lewis, and Kaufam et. al. show that variations in social origin are found between vocational education students and non-vocational students. Similarly, the race of graduates has been found to influence earnings of graduates.[7]

In summary, a review of follow-up studies done in recent years indicates that a number of factors have been used as indices of occupational achievement, including earnings, length of employment, job satisfaction, occupational status, and occupational mobility. Other variables, including sex, race, academic achievement, social origin, and college attendance, have been found to be related to occupational achievement.

Outline of the Remaining Chapters

Chapter two contains an explanation of the procedures and methods used in the study. The construction of the questionnaire, selection of the sample, mailing and response rates, and the data analysis techniques used are described.

Chapter three gives a description of the 1970 graduates who completed two semesters or more of vocational education training.

An analysis of the occupational activities of the vocational education graduates of 1970 is presented in chapter four. The fifth chapter presents the vocational graduates' evaluation of their high school training.

In chapter six the results of the comparisons of vocational and non-vocational students' occupational achievements are analyzed. The last chapter gives a summary of conclusions and implications.

NOTES

[1] U.S. Congress, House, An Act to Strengthen and Improve the Quality of Vocational Education and to Expand the Vocational Education Opportunities in the Nation, to Extend for Three Years the National Defense Education Act of 1958 and Public Law 815 and 874, Eighty-first Congress (Federally Affected Areas), and for Other Purposes, Public Law 88-210, 88th Congress, Dec. 18, 1963, H.R. 4955, pp. 1-3.

[2] U.S. Congress, House, An Act to Amend the Vocational Education Act of 1963, and for Other Purposes, Public Law 90-576, 90th Congress, October 16, 1968, H.R. 18366, pp. 1-2, 9.

[3] Ernst W. Stromsdorfer, Review and Synthesis of Cost-Effectiveness Studies of Vocational and Technical Education, ERIC, 1972, p. 3.

[4] *Ibid*., p. 106.

[5] Max U. Eninger, The Process and Product of T and I High School Level Vocational Education in the United States: The Product, (Pittsburg, Penn.: American Institutes for Research, 1965)

[6] J. Kenneth Little, Review and Synthesis of Research on the Placement and Follow-up of Vocational Education Students, (Center for Vocational and Technical Education, Columbus, Ohio, 1970)

[7] Jacob J. Kaufman and Morgan V. Lewis, The Potential of Vocational Education, (University Park, Penn.: Institute for Research on Human Resources, Penn. State Univ., 1968), Tables 25 and 26, pp. 56-57; Jacob J. Kaufman et. al., The Role of Secondary Schools in the Preparation of Youth for Employment, (University Park, Penn.: The Institute for Research on Human Resources, Penn. State Univ., 1967), Tables 6.3 and 6.4, Chapter 6, pp. 6-7.

CHAPTER II

PROCEDURES AND METHODS

In this chapter the procedures used in collecting the data and the techniques used in summarizing and analyzing the data are described. It is necessary for the reader to be informed of these procedures and techniques before proceeding to the discussion of the findings.

The procedures for collecting the data include the construction and field testing of a questionnaire; the selection of the sample of graduates to be surveyed; mailing of the questionnaires and follow-up; and coding of responses and preparation for data processing by computer. The data analysis techniques used were summary of descriptive data by computer and chi square. Each of these procedures and techniques will be described in this chapter.

Obtaining the Support of Target School Personnel

The Division of Vocational, Technical and Adult Education of the Arkansas State Department of Education selected the five school districts to be included in the study. The superintendent of each district was contacted, and the proposed study was explained to him. He was then asked if he would like for his school to be in the study. After receiving an affirmative response from each of the five superintendents, Mr. Grady Knight, Coordinator of Program Planning and Evaluation for the Division, wrote letters to the person in charge of vocational programs in each of the five school districts, inviting them to a meeting with personnel from the State Department and the consultants who had been contracted to conduct the study. The meeting, which was designed to familiarize the vocational supervisors with the study and to ask their help in collecting data, was scheduled for January 10, 1974.

At the meeting, copies of an outline of the proposed study were reviewed with those present. After a brief discussion, the representatives of the participating schools agreed that the study would be worthwhile, and agreed to be involved in the study, with those representatives present to act as contact persons for their school district. The data needed were agreed upon, and the representatives agreed to provide the information on each 1970 graduate. It was decided that 1970 graduating seniors who had taken vocational education courses in either the eleventh or twelfth grades would be the target group. Comparisons would be made of those who had two semesters of vocational education courses and those who had four semesters. Both of these groups were to be compared to a third group of graduates who had no vocational education courses. The representatives also agreed to critique the preliminary questionnaire.

Construction and Tryout of Questionnaire

A preliminary questionnaire was developed which was designed to obtain information concerning the occupational status and achievement of high school graduates. The preliminary questionnaire was tested for clarity and reading level by eleven graduates of Texarkana High School. All but one were 1973 graduates; the group included men and women, black and white, vocational and non-vocational graduates. The items on the questionnaire were discussed individually with each person completing the questionnaire.

The suggestions made by the eleven were included in a revised questionnaire, which was administered to five additional graduates for further testing of the questionnaire.

One professional person from each of the schools involved in the survey, and personnel from the State Department of Education, Division of Vocational, Technical, and Adult Education, were invited to read and critique the preliminary questionnaire. The suggestions of the professionals and the graduates were incorporated into the final questionnaire.

Part I of the questionnaire, printed on white paper, was to be completed by all graduates in the sample; Part II, on blue paper, was to be completed by those employed at the time of receiving the questionnaire; and Part III, on pink paper, was to be completed by those surveyed who were unemployed at the time but had been employed sometime after graduation. Instructions at the end of Part I directed the respondent to complete the appropriate section. (See copy of questionnaire in Appendix B.)

Selection of Sample

The purpose of sample selection was to obtain two comparable groups of graduates from each school in the study. One group was made up of students who had no vocational education courses in high school; the other group consisted of students who completed at least two semesters of vocational courses. The latter group was divided into two groups so comparisons could be made between those who had one year (two semesters) of vocational courses and those who had two years (four semesters) of vocational courses. Only the courses taken in the eleventh and twelfth grades were considered.

Although there are variations in the number of courses offered in each vocational area, high schools in Arkansas offer courses in the following six areas: Vocational Agriculture; Distributive Education; Health Occupations; Home Economics; Business and Office; and Trade and Industrial Education.

A list of all the 1970 graduates from the eight target schools in five school districts was obtained. Data sheets were completed on all of them by searching the school's records to obtain addresses, identification information such as race and sex, grade point average, and vocational education courses taken in the eleventh and twelfth grades.

One of the goals of the study was to compare vocational education graduates with non-vocational graduates who were comparable in as many aspects as possible. An effort, therefore, was made to eliminate those who attended college. In determining which graduates should receive questionnaires, the following criteria were established:

Criterion 1 - All 1970 graduates who completed any vocational training in high school, regardless of their plans to go or not to go to college.

Criterion 2 - All 1970 graduates whose grade point average was below 2.25 and had not taken any vocational training in high school, regardless of their plans to go or not to go to college.

Criterion 3 - All 1970 graduates whose grade point average was above 2.25 and had not taken any vocational training in high school but planned not to go to college.

Table 2.1 shows the total number of 1970 graduates from each school and the number who were sent questionnaires.

Table 2.1: THE NUMBER OF 1970 GRADUATES FROM THE TARGET SCHOOLS AND THE NUMBER OF GRADUATES IN THE SAMPLE TO RECEIVE QUESTIONNAIRES

School	Total Number of Graduates	Sample Receiving Questionnaires
Blytheville	251	183
El Dorado	357	251
Fayetteville	296	191
Little Rock Hall	492	272
Little Rock Metropolitan	161	151
Little Rock Central	578	376
Little Rock Horace Mann	173	145
Texarkana	289	180
TOTAL	2,597	1,749

Overall, 67 percent of the graduates were included in the sample to receive questionnaires.

Mailing of Questionnaires and Follow-Up

Based upon the criteria given above, the names and addresses of the graduates to receive questionnaires were compiled. The questionnaires were mailed with a cover letter signed by one or more school officials. A stamped, self-addressed envelope was included with the questionnaires. The first mailing was made during the week of April 15, 1974. A total of 1,749 questionnaires were mailed to the sample of 1970 graduates. In response to the first mailing, 22 percent of the questionnaires were completed and returned. Twenty-four percent were returned by postal service, undelivered; fifty-four percent failed to respond.

During the week of May 6, 1974, a second questionnaire was mailed to 875 of those who received questionnaires but failed to respond. Only 9 percent of the 875 questionnaires were returned undelivered. Again 22 percent responded by completing and returning the questionnaire.

Since so many people had moved, and the postal service was unable to deliver the questionnaires, an effort was made to obtain new addresses for the people whose questionnaires were not delivered. An incentive of one dollar was offered to school personnel for each new address obtained.

Over 200 new addresses of graduates were obtained, and a third mailing was made to these in various schools during July, August, and September. Note that the second mailing was to graduates who had received a questionnaire earlier; the third mailing was to those who had not received their questionnaires because they had moved.

Table 2.2 presents a summary of the responses to the three mailings. A total of 635 replies were received, 36 percent of the sample, and 24 percent of the total number of 1970 graduates.

Table 2.2: DISTRIBUTIONS OF RESPONSES OF 1,749 HIGH SCHOOL GRADUATES IN ARKANSAS TO THREE MAILINGS OF QUESTIONNAIRES

	First Mailing		Second Mailing		Third Mailing	
	No.	%	No.	%	No.	%
Total Sent	1,749	100	875	100	229	100
Replies	379	22	196	22	60	26
Undelivered	420	24	77	9	28	12
Delivered, but No Response	950	54	602	69	141	62

Of the questionnaires returned, 279 were from men and 356 from women. Eighty-six percent of the returns were from white graduates; only 78 percent of the sample were white. Table 2.3 presents more detailed information about the sample who received questionnaires and those who returned their questionnaires.

Table 2.3: A SUMMARY OF THE CHARACTERISTICS OF GRADUATES RECEIVING QUESTIONNAIRES AND THOSE RETURNING QUESTIONNAIRES

	Sent Out		Returned	
Variable	Number	Percent	Number	Percent
SEX				
Male	887	50.71	279	43.94
Female	862	49.29	356	56.06
	1,749	100.00	635	100.00
RACE				
White	1,371	78.39	546	85.98
Black	368	21.04	89	14.02
Not Available	10	.57	--	---
	1,749	100.00	635	100.00
GRADE POINT				
4.00	3	.17	3	.47
3.00 - 3.99	125	7.15	77	12.13
2.00 - 2.99	695	39.74	283	44.57
1.00 - 1.99	866	49.51	256	40.31
.00 - .99	22	1.26	3	.47
Not Available	38	2.17	13	2.05
	1,749	100.00	635	100.00
VOCATIONAL EDUCATION TRAINING				
0 Semester	872	49.86	284	44.73
1 Semester	21	1.20	7	1.10
2 Semester	466	26.64	208	32.76
3 Semester	11	.63	2	.31
4 Semester	379	21.67	134	21.10
	1,749	100.00	635	100.00

Data shown in Table 2.3 indicate that the pattern of returns was similar to that found in many other surveys. That is, a greater percent of females returned their questionnaires than males, and more white graduates than black graduates.

Preparation of Data for Processing

As the questionnaires were received, names were checked on a master list. Items on the data sheet, containing information from school records, were coded for key punching. These data were punched on one IBM data card. A second card was used for the coded responses from questionnaires. Thus, one card was punched for all 1970 graduates who received a questionnaire; a second card was punched for each graduate who returned the questionnaire.

During the planning stage of the study, data presentation tables were designed in anticipation of the means by which the data would be presented. These tables served as a guide for the programmer who wrote the computer programs used in compiling and analyzing the information.

In summary, the following steps were followed: (1) data presentation tables were prepared that would show information answering specific questions; (2) data summary sheets were prepared; (3) the data from school records and from questionnaires were recorded in coded form on the summary sheets; (4) data cards were punched from the data sheets; (5) computer programs were written; (6) computer printouts were received and analyzed; (7) needed corrections in computer programs were made; (8) second computer printouts were received; (9) data were analyzed and summarized; and (10) the report was written.

Techniques of Data Analysis

Two statistical techniques were used in the study: tabulations and summarizing of responses, and chi square. Much of the information in chapters three, four, and five is descriptive, summarized in tables showing numbers and percentages. In chapter six, where comparisons are made, chi square was used to determine if significant differences existed in the numbers in various categories.

Chi square is a means of answering questions about data existing in the form of frequencies, rather than measurements along some scale. This technique is appropriately used to measure the discrepancies existing between observed and expected frequencies in a given category. In this study, the computations of chi square were accomplished by use of the HP-65, a programmable calculator developed by Hewlett Packard. A pre-recorded program of 83 steps ("2 x K Contingency Table"), from the Hewlett-Packard HP-65 Stat Pac I, was used to compute chi square.

CHAPTER III

A DESCRIPTION OF THE 1970 GRADUATES WHO COMPLETED VOCATIONAL EDUCATION COURSES IN SELECTED ARKANSAS HIGH SCHOOLS

The purpose of this chapter is to present an overview of the students taking vocational education courses in the target schools. Descriptive data are given, showing the numbers and percentages of students, their race, sex, grade point average, and trends in absences. The information in this chapter was obtained from school records.

Number and Percent of Graduates Completing Vocational Education Courses

A comparison of the total number of graduates from each of the eight target schools and the number taking vocational education courses in the eleventh grade, twelfth grade, and both grades can be made with data given in Table 3.1 below.

Table 3.1: THE NUMBER AND PERCENT OF 1970 GRADUATES WHO COMPLETED VOCATIONAL EDUCATION COURSES IN THE EIGHT TARGET SCHOOLS

School	Number of Graduates	Completed Vocational Education Courses					
		11th Grade		12th Grade		11th and 12th Grade	
		No.	Percent	No.	Percent	No.	Percent
Blytheville	248	37	14.92	86	34.68	29	11.69
El Dorado	357	45	12.61	132	36.97	35	9.80
Fayetteville	297	111	37.37	140	47.14	75	25.25
Little Rock Hall	490	15	3.06	89	18.16	8	1.63
Little Rock Metropolitan	151	141	93.38	145	96.03	138	91.39
Little Rock Central	572	25	4.37	53	9.27	18	3.15
Little Rock Horace Mann	173	47	27.17	61	35.26	42	24.28
Texarkana	285	48	16.84	88	30.88	41	14.39
TOTALS	2,573	469	18.23	794	30.86	386	15.00

The numbers in Table 3.1 above include all students who had one or two semesters of vocational education courses in the eleventh and/or twelfth grades.

Data given in Table 3.1 above show that more students completed vocational courses in the twelfth grade than in the eleventh grade. Approximately 15 percent, or 3 out of 20 students, had vocational education courses in both eleventh and twelfth grades. Eighteen percent of the students completed vocational courses in the eleventh grade and 31 percent completed such courses in the twelfth grade. Little Rock Metropolitan High School is a vocational school and had the highest percentage of students enrolled in vocational courses while Little Rock Hall and Little Rock Central High Schools had the lowest percentage of students enrolled in vocational courses.

Table 3.2 shows a breakdown of the students who completed vocational education courses according to the various vocational areas. The totals are not the same as the totals in Table 3.1. There are several reasons for the differences. For example, a student may have had a course in Home Economics in the eleventh grade and a course in Business in the twelfth grade. This student was counted as "Both eleventh and twelfth grade" on Table 3.1 but not in both on Table 3.2

Table 3.2: THE NUMBER AND PERCENT OF STUDENTS WHO COMPLETED COURSES IN THE SIX VOCATIONAL AREAS

	Vocational Education Courses					
	Completed in 11th Grade		Completed in 12th Grade		Completed in Both 11th and 12th Grade	
Courses	No.	Percent	No.	Percent	No.	Percent
Agri Education	5	1.02	21	2.49	3	0.87
Distributive Education	47	9.61	133	15.78	37	10.76
Health Occupations	8	1.64	20	2.37	4	1.16
Home Economics	59	12.07	118	14.00	36	10.47
Business and Office	137	28.02	270	32.03	69	20.06
Trade and Industrial	233	47.65	281	33.33	195	56.69
TOTALS	489	100.00	843	100.00	344	100.00

The outstanding fact seen in Table 3.2 is that more than half of the students who completed courses in the same area in both grades were in the Trade and Industrial area. Each of the other areas had approximately twice as many students in the twelfth grade as the eleventh grade.

Distribution of Vocational Education Graduates by Sex

The number of male and female students taking vocational education courses, in the 1970 graduates from the target schools, can be seen in Table 3.3.

Table 3.3: THE NUMBER AND PERCENT OF MALE AND FEMALE VOCATIONAL EDUCATION GRADUATES IN THE 1970 GRADUATES FROM THE EIGHT TARGET SCHOOLS

School	Sex			
	Male		Female	
	Number	Percent	Number	Percent
Blytheville	49	52.13	45	47.87
El Dorado	50	35.21	92	64.79
Fayetteville	71	40.34	104	59.09
Little Rock Hall	12	12.50	84	87.50
Little Rock Metropolitan	85	57.43	63	42.57
Little Rock Central	20	33.33	40	66.67
Little Rock Horace Mann	39	59.09	27	40.91
Texarkana	63	66.32	32	33.68
TOTALS	389	44.36	487	55.53

Note: The sum of percentages is unequal to 100 because of one "no response."

The data presented in Table 3.3 indicate wide differences in the proportion of boys and girls in vocational education courses in the different schools. Overall, slightly more girls than boys completed vocational education courses. Undoubtedly the enrollment in vocational education according to sex is related to the type of vocational offerings available in the school.

Distribution of Vocational Education Graduates by Race

Table 3.4 below presents the number and percent of black and white students in the 1970 graduates from the target schools who completed vocational education courses.

Table 3.4: THE DISTRIBUTION, BY RACE, OF THE 1970 VOCATIONAL GRADUATES FROM THE EIGHT TARGET SCHOOLS

	Race			
	Black		White	
School	Number	Percent	Number	Percent
Blytheville	3	3.19	91	96.81
El Dorado	23	16.20	115	80.99
Fayetteville	2	1.14	174	98.86
Little Rock Hall	1	1.04	95	98.96
Little Rock Metropolitan	13	8.78	133	89.86
Little Rock Central	10	16.67	50	83.33
Little Rock Horace Mann	65	98.48	1	1.52
Texarkana	29	30.53	65	68.42
TOTALS	146	16.65	724	82.55

Note: The sum of percentages is unequal to 100 because of 7 "no responses."

The data shown in Table 3.4 indicate that in every school except one the majority of the vocational education students were white. The school enrollment in that school was predominately black in 1970. Of the total for all schools, more than 80 percent were white.

The Academic Achievement of the Vocational Education Graduates

In an effort to further describe the 1970 vocational education graduates from the target schools, the grade point average of each student was copied from the official school records. Table 3.5 below gives a summary of the number and percent of students having grade point averages in the various levels. The grade point average is based upon a 4.00 system.

Table 3.5: A SUMMARY OF THE GRADE POINT AVERAGES OF 1970 VOCATIONAL GRADUATES FROM THE TARGET SCHOOLS

Grade Point Average	Number	Percent
3.51 - 4.00	17	1.94
3.01 - 3.50	77	8.78
2.51 - 3.00	138	15.74
2.01 - 2.50	244	27.82
1.51 - 2.00	270	30.78
Below 1.50	131	14.94
TOTAL	877	100.00

The data presented in Table 3.5 reveal the expected normal distribution, with 59 percent of the students having grade point averages in the 1.51 to 2.50 range. (2.00 grade point average is equal to letter grade of "C.")

The School Attendance of the Vocational Education Graduates

Another type of information considered to be of some importance was the students' absences from school. From the school records the number of days present and absent were recorded for all students for the eleventh and twelfth grades. The table following gives a summary of the average number of days absent for both years.

Table 3.6: THE AVERAGE NUMBER OF DAYS ABSENT FOR VOCATIONAL EDUCATION GRADUATES, 1970

Average Days Absent	Number of Students	Percent of Students
0 - 10	571	65.11
11 - 20	226	25.77
21 - 30	51	5.82
31 - 40	23	2.62
41 - 50	5	.57
51 - 60	1	.11
TOTALS	877	100.00

The data in the above table show that the majority of the students attended school regularly. However, 80 of the graduates missed four or more weeks of school. Ninety percent of the students were absent 20 days or less for the two years.

Summary

In this chapter we have described the 877 graduates from the eight target schools who completed vocational education courses in the eleventh and twelfth grades, during the 1968-69 and 1969-70 school years. Approximately 34 percent of all the 1970 graduates in the target schools had vocational education courses. Of those taking vocational education courses, 44 percent are male, 56 percent are female. Only 17 percent of them are black, and 83 percent are white.

Only 39 percent of the graduates had vocational courses in the same occupational area in both the eleventh and twelfth grades. Fifty-six percent of those having two years in one area were in trade and industrial training courses.

The achievement level of the vocational graduates was comparable to other students. Almost 60 percent had grade-point averages between "C-" and "C+".

CHAPTER IV

THE POST-HIGH SCHOOL OCCUPATIONAL ACTIVITIES OF THE 1970 VOCATIONAL EDUCATION GRADUATES IN SELECTED ARKANSAS HIGH SCHOOLS

Introduction

Information will be presented in this chapter concerning the occupational experiences of the 1970 vocational education graduates since they left high school. The present status; the number of jobs they have held; how long they worked at each job; the level of jobs; the occupational area of their present job; method of obtaining their present job; whether their job is in the same area as their high school training; satisfaction with their job; further training; and present earnings are some topics included in this chapter. The data in this chapter was obtained from the returned questionnaires.

The data presented in tables will show, in each case, the numbers and percent for graduates who had two semesters of vocational training, the data on those who had four semesters of vocational training, and the totals.

Present Status

The first question to be considered is the graduates' present occupational status. After four years, what are the graduates doing? How many are unemployed? How many are attending college?

These questions, and others, can be answered by data shown in Table 4.1.

Table 4.1: THE PRESENT OCCUPATIONAL STATUS OF 339 VOCATIONAL EDUCATION GRADUATES OF 1970 FROM EIGHT HIGH SCHOOLS IN ARKANSAS

	Years in Vocational Education					
	One Year		Two Years		Total	
Occupational Status	No.	Percent	No.	Percent	No.	Percent
Working Full Time	94	45.85	86	64.18	180	53.10
Working Part Time	9	4.39	2	1.49	11	3.24
In Military Service	13	6.34	8	5.97	21	6.19
Attending Vocational School	0	0.00	0	0.00	0	0.00
Attending College	41	20.00	16	11.94	57	16.81
Housewife	27	13.17	15	11.19	42	12.39
Unemployed	14	6.83	4	2.99	18	5.31
Other	7	3.41	3	2.24	10	2.95
TOTAL	205	100.00	134	100.00	339	100.00

The data given in Table 4.1 above are based upon questionnaires returned from all eight of the target schools. Only those who completed two semesters of vocational education courses (one year) and those who completed four semesters (two years) of vocational education are included in this table.

Analysis of the data given shows that 53 percent were working full-time at the time the questionnaires were completed, while only 5.31 percent were unemployed. College students and housewives make up about 29 percent of the total number of responses.

Comparison of the one-year with the two-year vocational students reveals that a much greater percentage of the two-year people are employed full-time and the unemployment rate is much lower, while more one-year people are attending college.

To analyze the present occupational status of the vocational education graduates in more detail, the responses were broken down by area of vocational training. Table 4.2 below gives the occupational status of graduates who completed one year of vocational education, by the areas in which they were trained.

Table 4.2: THE PRESENT OCCUPATIONAL STATUS OF GRADUATES WHO COMPLETED TWO SEMESTERS OF VOCATIONAL EDUCATION, BY AREAS OF TRAINING

Occupational Status	Agri		Dist. Ed.		Health Oc.		Home Ec		Business		T and I		Total	
	No.	Percent	No.	Percent	No.	Percent	No.	Percent	No.	Percent	No.	Percent	No.	Percent
Working Full Time	3	75.00	18	48.65	0	0.00	14	37.84	44	44.90	14	46.67	93	44.93
Working Part Time	0	0.00	2	5.41	0	0.00	1	2.70	4	4.08	2	6.67	9	4.35
In Military Service	1	25.00	3	8.11	0	0.00	0	0.00	4	4.08	6	20.00	14	6.76
Attending Vocational School	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Attending College	0	0.00	8	21.62	1	100.00	8	21.62	23	23.47	2	6.67	42	20.29
Housewife	0	0.00	3	8.11	0	0.00	8	21.62	15	15.31	1	3.33	27	13.04
Unemployed	0	0.00	3	8.11	0	0.00	3	8.11	5	5.10	4	13.33	15	7.25
Other	0	0.00	0	0.00	0	0.00	3	8.11	3	3.06	1	3.33	7	3.38
TOTAL	4	100.00	37	100.00	1	100.00	37	100.00	98	100.00	30	100.00	207	100.00

The information given in Table 4.2 above indicates that of the 207 respondents having one year of vocational education, 98 or 47 percent were students who had taken vocational business courses in high school. Approximately one out of five of the one-year people are in college.

There are a number of interesting observations in Table 4.2 including the following: (1) of those working full time, the largest percentage had high school vocational training in agriculture, (2) of those unemployed, the largest percentage had had high school vocational training in the trades and industry courses, (3) of those going to college, the largest percentage had high school vocational training in the business courses (except one person in health occupations), and (4) none of the respondents were attending trade and vocational schools.

The following table gives information concerning the present status of graduates who completed four semesters or two years of vocational education. Table 4.3 below presents a summary of all eight schools, by area of training.

Table 4.3: THE PRESENT OCCUPATIONAL STATUS OF GRADUATES WHO COMPLETED FOUR SEMESTERS OF VOCATIONAL EDUCATION, BY AREAS OF TRAINING

Occupational Status	Agri		Dist. Ed.		Health Oc.		Home Ec		Business		T and I		Total	
	No.	Percent	No.	Percent	No.	Percent	No.	Percent	No.	Percent	No.	Percent	No.	Percent
Working Full Time	2	100.00	10	62.50	2	25.00	16	64.00	28	59.57	50	66.67	108	62.43
Working Part Time	0	0.00	0	0.00	0	0.00	0	0.00	1	2.13	2	2.67	3	1.73
In Military Service	0	0.00	1	6.25	0	0.00	1	4.00	0	0.00	6	8.00	8	4.62
Attending Vocational School	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Attending College	0	0.00	2	12.50	2	25.00	6	24.00	6	12.77	5	6.67	21	12.14
Housewife	0	0.00	2	12.50	3	37.50	2	8.00	10	21.28	8	10.67	25	14.45
Unemployed	0	0.00	0	0.00	0	0.00	0	0.00	1	2.13	3	4.00	4	2.31
Other	0	0.00	1	6.25	1	12.50	0	0.00	1	2.13	1	1.33	4	2.31
TOTAL	2	100.00	16	100.00	8	100.00	25	100.00	47	100.00	75	100.00	173	100.00

The data shown in Table 4.3 above are in terms of student units, not actual people. Some graduates had courses in more than one vocational area.

The data in Table 4.3 indicate that (1) a high percentage of students who had high school vocational training in Agriculture, Distributive Education, Home Economics, and Trade and Industry were working full time, (2) one-fourth of the students that had taken high school vocational training in Health Occupations were attending college, (3) sixty-two percent of the students who had completed two years of vocational training were working full time while only 2.31 percent were unemployed, (these percentages for one-year graduates were 45 percent and 7 percent respectively) and (4) approximately two out of three two-year vocational education graduates were in either Business or Trade and Industrial courses.

Full-Time and Part-Time Jobs Held Since Graduation

Throughout this chapter many different kinds of comparisons will be made of one-year and two-year vocational education graduates. In the following table the one-year and two-year vocational education graduates are compared in terms of the number of full-time and part-time jobs held since graduation in 1970.

Table 4.4: THE NUMBER OF FULL-TIME AND PART-TIME JOBS HELD SINCE GRADUATION BY VOCATIONAL EDUCATION GRADUATES OF EIGHT ARKANSAS HIGH SCHOOLS, BY AMOUNT OF VOCATIONAL EDUCATION TRAINING

	FULL-TIME JOBS						PART-TIME JOBS					
	One Year Voc. Training		Two Years Voc. Training		Totals		One Year Voc. Training		Two Years Voc. Training		Totals	
Number of Jobs	No.	Percent	No.	Percent	No.	Percent	No.	Percent	No.	Percent	No.	Percent
None	43	20.87	10	7.46	53	15.59	86	41.75	66	49.25	152	44.71
One	53	25.73	38	28.36	91	26.76	62	30.10	39	29.10	101	29.71
Two	52	25.24	34	25.37	86	25.29	22	10.68	20	14.93	42	12.35
Three	38	18.45	34	25.37	72	21.18	20	9.71	4	2.99	24	7.06
Four or More	18	8.74	17	12.69	35	10.29	15	7.28	4	2.99	19	5.59
No Response	2	0.97	1	0.75	3	0.88	1	0.49	1	0.75	2	0.59
TOTAL	206	100.00	134	100.00	340	100.00	206	100.00	134	100.00	340	100.00

The data given in Table 4.4 indicate that less than 10 percent of the two-year vocational graduates have not held full-time jobs since graduation; of the one-year people, over 20 percent have not held full-time jobs. A higher percent of two-year vocational people have held more full-time jobs, while a greater percent of one-year vocational graduates have held more part-time jobs.

Length of Time on Jobs

Another type of information obtained in this study relates to the length of time graduates have spent on various jobs held since graduation. Again, comparisons were made between the one-year and two-year vocational education graduates. Table 4.5 below summarizes the number and percent of one-year and two-year vocational graduates spending various amounts of time on different jobs.

Table 4.5: THE LENGTH OF TIME 1970 GRADUATES FROM EIGHT ARKANSAS HIGH SCHOOLS HAVE HELD JOBS, BY AMOUNT OF VOCATIONAL EDUCATION TRAINING

Length of Time	Duration of Shortest Job						Duration of Longest Job					
	One Year Voc. Training		Two Years Voc. Training		Totals		One Year Voc. Training		Two Years Voc. Training		Totals	
	No.	Percent	No.	Percent	No.	Percent	No.	Percent	No.	Percent	No.	Percent
Less Than 6 Months	74	35.75	51	38.06	125	36.66	74	35.75	60	44.78	134	39.30
6 Months - 1 Year	37	17.87	28	20.90	65	19.06	27	13.04	17	12.69	44	12.90
1 Year - 18 Months	7	3.38	11	8.21	18	5.28	29	14.01	23	17.16	52	15.25
18 Months - 2 Years	13	6.28	4	2.99	17	4.99	18	8.70	13	9.70	31	9.09
More Than 2 Years	28	13.53	20	14.93	48	14.08	16	7.73	11	8.21	27	7.92
No Full-Time Job	39	18.84	11	8.21	50	14.66	39	18.84	9	6.72	48	14.08
No Response	9	4.35	9	6.72	18	5.28	4	1.93	1	0.75	5	1.47
TOTAL	207	100.00	134	100.00	341	100.00	207	100.00	134	100.00	341	100.00

The data given in Table 4.5 above was intended to apply to full-time jobs only. The data does not seem to reveal any real significant difference between the two groups. The information sometimes seems to favor the one-year group and other times the two-year group.

Types of Jobs Presently Held

One item on the questionnaire asked the respondent to identify the type of job in which he was working at the time. Six job categories, which correspond with the areas of vocational training, were listed, with examples. Table 4.6 below presents a summary of the responses from all eight target schools.

Table 4.6: THE TYPES OF JOBS PRESENTLY HELD BY 1970 VOCATIONAL EDUCATION GRADUATES FROM EIGHT ARKANSAS HIGH SCHOOLS, BY AMOUNT OF VOCATIONAL EDUCATION TRAINING

	Number of Years in Vocational Education					
	One Year		Two Years		Total	
Type of Job	No.	Percent	No.	Percent	No.	Percent
Trade and Industrial	19	16.10	39	40.63	58	27.10
Distribution and Marketing	16	13.56	11	11.46	27	12.62
Office Occupation	41	34.75	22	22.92	63	29.44
Health Occupation	13	11.02	11	11.46	24	11.21
Agriculture	2	1.69	1	1.04	3	1.40
Home Economics Occupation	2	1.69	1	1.04	3	1.40
Other	25	21.19	10	10.42	35	16.36
No Response	0	0.00	1	1.04	1	0.47
TOTAL	118	100.00	96	100.00	214	100.00

Twenty-nine percent of those presently employed who returned questionnaires are working in office occupations. Among two-year vocational graduates, more people are working in the trade and industrial area than any other area. Over 60 percent of the two-year people are working in the trade and industrial area or office occupations area.

Level of Jobs Presently Held

Another item in the questionnaire required respondents to write their job title and briefly describe what they do. From this information, each job was coded by referring to the Dictionary of Occupational Titles; the occupational level of the job was determined from the DOT code and the code was punched into the data cards, along with all of the other information. Table 4.7 below gives a summary of the job level information for those graduates from all eight schools who are presently employed.

Table 4.7: A SUMMARY OF JOB LEVEL INFORMATION FOR 1970 VOCATIONAL EDUCATION GRADUATES FROM EIGHT ARKANSAS HIGH SCHOOLS, BY AMOUNT OF VOCATIONAL EDUCATION TRAINING

	Number of Years in Vocational Education					
	One Year		Two Years		Total	
Occupational Level of Job	No.	Percent	No.	Percent	No.	Percent
Professional, Technical, Managerial	29	24.58	19	19.79	48	22.43
Clerical and Sales	59	50.00	34	35.42	93	43.46
Service	13	11.02	5	5.21	18	8.41
Farming, Fishery, Forestry, Related	1	0.85	0	0.00	1	0.47
Processing	0	0.00	0	0.00	0	0.00
Machine Trades	5	4.24	19	19.79	24	11.21
Bench Work	3	2.54	0	0.00	3	1.40
Structural Work	4	3.39	10	10.42	14	6.54
Miscellaneous	4	3.39	9	9.38	13	6.07
TOTAL	118	100.00	96	100.00	214	100.00

The data presented in Table 4.7 above indicate little difference in the job level of one-year and two-year vocational graduates. More one-year people are employed in clerical and sales jobs; more two-year people are working in machine trades and structural work. Approximately 77 percent of the graduates are employed in professional, technical, managerial, clerical and sales, and machine trades occupations.

Relation of Jobs and High School Training

One of the most important questions to be dealt with in a follow-up study such as this is, "To what extent are people working in jobs related to their high school training?" By comparing the type of job in which graduates are employed with the courses taken in high school, that question can be answered. Table 4.8 below gives data showing the extent to which respondents' training coincides with the type of job now held.

Table 4.8: THE EXTENT TO WHICH 1970 VOCATIONAL GRADUATES' HIGH SCHOOL TRAINING COINCIDES WITH THE TYPE OF JOB NOW HELD

	Training Coincides with Type of Job Now Held											
	One Year						Two Years					
	Yes		No		Total		Yes		No		Total	
Type of Job	No.	Percent	No.	Percent	No.	Percent	No.	Percent	No.	Percent	No.	Percent
Trade and Industrial	6	15.38	13	16.67	19	16.24	31	72.09	8	17.39	39	43.82
Distribution and Marketing	5	12.82	11	14.10	16	13.68	1	2.33	9	19.57	10	11.24
Office Occupations	27	69.23	13	16.67	40	34.19	11	25.58	8	17.39	19	21.35
Health Occupations	0	0.00	13	16.67	13	11.11	0	0.00	9	19.57	9	10.11
Agriculture	0	0.00	2	2.56	2	1.71	0	0.00	1	2.17	1	1.12
Home Economics Occupations	1	2.56	1	1.28	2	1.71	0	0.00	1	2.17	1	1.12
Other	0	0.00	25	32.05	25	21.37	0	0.00	9	19.57	9	10.11
TOTAL	39	100.00	78	100.00	117	100.00	43	100.00	46	100.00	89	100.00

The data in Table 4.8 above show that 33 percent of the one-year vocational education graduates and 48 percent of the two-year people are now working in jobs in the same area as their training. The highest percent in the same area among the one-year vocational people are presently working in office occupations, (69 percent). The highest rate of congruence among two-year vocational graduates is in the trade and industrial area, (72 percent).

Methods of Obtaining Present Jobs

Responses to another questionnaire item provided the data found in Table 4.9 below on how the graduates obtained their present jobs.

Table 4.9: A SUMMARY OF METHODS BY WHICH 1970 VOCATIONAL EDUCATION GRADUATES FROM THE TARGET SCHOOLS OBTAINED THEIR PRESENT JOBS

	Number of Years in Vocational Education					
	One Year		Two Years		Total	
Method of Obtaining Job	No.	Percent	No.	Percent	No.	Percent
Through Direct Application	56	47.46	41	42.71	97	45.33
Through Newspaper Advertisement	5	4.24	4	4.17	9	4.21
Through Private Employment Agency	4	3.39	7	7.29	11	5.14
Helped by Public Employment Agency	9	7.63	2	2.08	11	5.14
Helped by High School Counselor	1	0.85	2	2.08	3	1.40
Helped by High School Teacher l	2	1.69	3	3.13	5	2.34
Helped by Family	1	0.85	3	3.13	4	1.87
Helped by Relatives or Friends	28	23.73	22	22.92	50	23.36
Helped by School	4	3.39	3	3.13	7	3.27
Other	8	6.78	0	0.00	8	3.74
TOTAL	118	100.00	96	100.00	214	100.00

According to the data in Table 4.9 above, there is little difference in the methods used by one-year and two-year vocational education graduates in securing jobs. Approximately two out of three obtained their present jobs either through direct application or by help received from relatives or friends. It is striking to note that very few graduates were helped to get a job by their counselor or teachers.

Job Satisfaction

The graduates who completed questionnaires were given the opportunity to indicate their satisfaction or dissatisfaction with their jobs. They indicated, on a four-point scale from "Very Satisfied" to "Very Dissatisfied," their feelings concerning seven different aspects of the job and their overall job satisfaction. Table 4.10 below gives a summary of all of the responses from one-year vocational graduates from all eight target schools.

Table 4.10: THE EXTENT THAT 1970 GRADUATES WHO COMPLETED ONE YEAR OF VOCATIONAL EDUCATION IN THE EIGHT TARGET SCHOOLS ARE SATISFIED WITH VARIOUS ASPECTS OF THEIR PRESENT JOBS

	Very Satisfied		Satisfied		Dissatisfied		Very Dissatisfied		No Response		Total	
Job Conditions	No.	Percent	No.	Percent	No.	Percent	No.	Percent	No.	Percent	No.	Percent
Work You Do	64	54.24	43	36.44	11	9.32	0	0.00	0	0.00	118	100.00
People You Work With	64	54.24	48	40.68	6	5.08	0	0.00	0	0.00	118	100.00
Supervision Received	55	46.61	48	40.68	10	8.47	2	1.69	3	2.54	118	100.00
Appreciation Received	50	42.37	44	37.29	18	15.25	5	4.24	1	0.85	118	100.00
Promotions Available	32	27.12	46	38.98	26	22.03	7	5.93	7	5.93	118	100.00
Pay Received	32	27.12	60	50.85	21	17.80	5	4.24	0	0.00	118	100.00
Working Conditions	54	45.76	57	48.31	7	5.93	0	0.00	0	0.00	118	100.00
Overall Job Satisfaction	46	38.98	62	52.54	10	8.47	0	0.00	0	0.00	118	100.00

The data in Table 4.10 show that 90 percent of the one-year vocational students are satisfied or very satisfied, overall, with their jobs. The greatest job satisfaction seems to be in the people with which the graduates work and the working conditions. The greatest dissatisfaction seems to be with the promotions available.

Table 4.11 below presents a summary of two-year vocational graduates' attitudes toward their jobs; data on all eight target schools are included.

Table 4.11: THE EXTENT THAT 1970 GRADUATES WHO COMPLETED TWO YEARS OF VOCATIONAL EDUCATION IN THE EIGHT TARGET SCHOOLS ARE SATISFIED WITH VARIOUS ASPECTS OF THEIR PRESENT JOBS

Job Conditions	Very Satisfied		Satisfied		Dissatisfied		Very Dissatisfied		No Response		Total	
	No.	Percent	No.	Percent	No.	Percent	No.	Percent	No.	Percent	No.	Percent
Work You Do	53	55.21	38	39.58	3	3.13	2	2.08	0	0.00	96	100.00
People You Work With	46	47.92	46	47.92	2	2.08	2	2.08	0	0.00	96	100.00
Supervision Received	45	46.88	37	38.54	9	9.38	5	5.21	0	0.00	96	100.00
Appreciation Received	37	38.54	43	44.79	10	10.42	6	6.25	0	0.00	96	100.00
Promotions Available	30	31.25	39	40.63	15	15.63	11	11.46	1	1.04	96	100.00
Pay Received	30	31.25	51	53.13	5	5.21	10	10.42	0	0.00	96	100.00
Working Conditions	40	41.67	47	48.96	5	5.21	3	3.13	1	1.04	96	100.00
Overall Job Satisfaction	35	36.46	50	52.08	9	9.38	2	2.08	0	0.00	96	100.00

The two-year vocational people who returned questionnaires also have positive feelings toward their jobs. As with the one-year vocational graduates, the highest percent of negative responses were on "Promotions Available."

Earnings in Present Jobs

One of the most concrete ways of studying occupational achievement is to consider earnings. One question asked in the survey was: "Approximately how much is your gross pay each week, on your present job?" The response was made by checking one of six alternatives, from "Less than $50 per week" to "$150 or more per week," in $25 intervals. Table 4.12 below gives a summary of the responses to this question, from graduates from the eight target schools.

Table 4.12: A SUMMARY OF PRESENT-JOB EARNINGS OF 1970 VOCATIONAL EDUCATION GRADUATES OF THE EIGHT TARGET SCHOOLS

	Number of Years in Vocational Education					
	One Year		Two Years		Total	
Gross Pay Per Week	No.	Percent	No.	Percent	No.	Percent
Less Than $50	5	4.24	3	3.13	8	3.74
$50 to $74	12	10.17	13	13.54	25	11.68
$75 to $99	31	26.27	17	17.71	48	22.43
$100 to $124	30	25.42	14	14.58	44	20.56
$125 to $149	12	10.17	24	25.00	36	16.82
$150 or More	19	16.10	21	21.88	40	18.69
Unable or Unwilling to Answer	9	7.63	4	4.17	13	6.07
TOTAL	118	100.00	96	100.00	214	100.00

The data shown in Table 4.12 above reveal that, of those graduates returning questionnaires, more than half are earning more than $100 per week. A higher percent of two-year vocational education graduates make $125 or more per week, than one-year vocational people.

Further Education and Training

One factor related to one's occupational achievement is the amount of training, and type of training received. The questionnaire was designed to obtain information concerning graduates' post-high school training. Table 4.13 below summarizes the responses to the question: "Since leaving high school, have you taken any further education or training?"

Table 4.13: A SUMMARY OF THE ADDITIONAL EDUCATION OR TRAINING RECEIVED BY 1970 VOCATIONAL EDUCATION GRADUATES FROM THE EIGHT TARGET SCHOOLS

	Number of Years in Vocational Education					
	One Year		Two Years		Total	
Type of Further Training	No.	Percent	No.	Percent	No.	Percent
No Further Education or Training	35	16.91	29	21.64	64	18.77
Vocational-Technical Training	25	12.08	13	9.70	38	11.14
Business School	8	3.86	6	4.48	14	4.11
College	97	46.86	41	30.60	138	40.47
Military Training	10	4.83	8	5.97	18	5.28
On-the-Job Training	23	11.11	26	19.40	49	14.37
Combination of the Above	5	2.42	10	7.46	15	4.40
No Response	4	1.93	1	0.75	5	1.47
TOTAL	207	100.00	134	100.00	341	100.00

The data given in Table 4.13 above indicate that four out of ten graduates returning questionnaires had some college after leaving high school. Overall, there are few differences in the one-year and two-year vocational graduates; the greatest difference is that more one-year people went to college.

Type of Further Training

In addition to the above, the questionnaire also asked if the additional training received were related to the training received in high school. Table 4.14 below gives a summary of the responses to this question.

Table 4.14: A SUMMARY OF THE RELATIONSHIP OF THE ADDITIONAL TRAINING RECEIVED BY 1970 VOCATIONAL EDUCATION GRADUATES TO THAT RECEIVED IN HIGH SCHOOL FROM THE EIGHT TARGET SCHOOLS

Type of Further Training	Number of Years in Vocational Education					
	One Year		Two Years		Total	
	No.	Percent	No.	Percent	No.	Percent
Continued Training From High School	25	12.08	19	14.18	44	12.90
Training Entirely Different	39	18.84	29	21.64	68	19.94
Does Not Apply	130	62.80	79	58.96	209	61.29
No Response	13	6.28	7	5.22	20	5.87
TOTAL	207	100.00	134	100.00	341	100.00

Over 60 percent of the respondents indicated that this question did not apply to their situation. Of those who had additional training, more people indicated that the training was "entirely different" than those who "continued training from high school."

CHAPTER V

THE 1970 VOCATIONAL EDUCATION GRADUATES' EVALUATION OF THEIR HIGH SCHOOL TRAINING

A subjective evaluation by the 1970 graduates of their high school experiences is presented in this chapter. Summary data and analysis of the graduates' questionnaire responses will reveal their attitudes toward the value of specific courses, the relation of high school training to present jobs, their parents' opinion of their high school education, and how helpful their high school counselors were in planning their careers. The data are presented separately for one-year vocational graduates (two-semesters) and two-year vocational graduates (four semesters), as well as the total responses.

The Relation of Present Job to High School Training

The data presented in Table 5.1 below summarizes the responses from all eight schools, to the question: "How closely related to your high school training is your present job?"

Table 5.1: A SUMMARY OF THE OPINIONS OF 1970 VOCATIONAL EDUCATION GRADUATES FROM THE EIGHT TARGET SCHOOLS ON THE RELATIONSHIP OF THEIR HIGH SCHOOL TRAINING TO THEIR PRESENT JOBS

	Number of Years in Vocational Education					
	One Year		Two Years		Total	
Extent of Relationship	No.	Percent	No.	Percent	No.	Percent
No Relation I Can See	43	36.44	33	34.38	76	35.51
Almost Completely Unrelated	11	9.32	12	12.50	23	10.75
Somewhat Related	40	33.90	24	25.00	64	29.91
Closely Related	16	13.56	9	9.38	25	11.68
Directly and Very Closely Related	7	5.93	17	17.71	24	11.21
No Response	1	0.85	1	1.04	2	0.93
TOTAL	118	100.00	96	100.00	214	100.00

The information summarized above indicates that over half of those vocational graduates returning questionnaires feel that their present job is somewhat related, or closely and directly related to their high school training. There is little difference in the responses of one-year and two-year vocational graduates.

Ratings of High School Courses

The graduates were asked to rate the high school courses taken, in terms of their helpfulness in the work done in their present jobs. The questionnaire listed the four basic academic subjects of English, science, mathematics, and social studies, and all of the vocational education courses offered in the graduates' schools. They were instructed to check each course taken as "Very Helpful," "Some Help," or "No Help." For the courses not taken, the graduates were to check the blank in the column under the heading "Did Not Take,"

It was planned to present a table summarizing the responses of one-year vocational education graduates, and another table summarizing the results for two-year vocational education graduates. However, the responses cannot be analyzed to produce any meaningful data because a great number of graduates who returned questionnaires rated many courses they did not take in high school. Their responses distorted the data to such an extent that it was decided that the tables should not be presented. This decision was made after the computer program for these tables had been revised to compute the percentages to show ratings only on those responses of "Very Helpful," "Some Help," and "No Help," eliminating the "Did Not Take" and "No Response" columns.

Parents' Opinion of Graduates' High School Education

All respondents were asked, "What is your parents' opinion of your high school education?" This required the graduate to report his or her perception of parents' opinion. Table 5.2 below summarizes the responses of the vocational education graduates from all eight target schools.

Table 5.2: THE 1970 VOCATIONAL EDUCATION GRADUATES' PERCEPTION OF THEIR PARENTS' OPINION OF THE HIGH SCHOOL EDUCATION RECEIVED BY GRADUATES FROM THE EIGHT TARGET SCHOOLS

	Number of Years in Vocational Education					
	One Year		Two Years		Total	
Parents' Opinion of High School	No.	Percent	No.	Percent	No.	Percent
Very Worthwhile	136	65.70	90	67.16	226	66.28
Somewhat Worthwhile	28	13.53	12	8.96	40	11.73
Not Worthwhile	5	2.42	6	4.48	11	3.23
Don't Know Parent's Opinion	37	17.87	25	18.66	62	18.18
No Response	1	0.48	1	0.75	2	0.59
TOTAL	207	100.00	134	100.00	341	100.00

Approximately two-thirds of the graduates responding indicated that their parents considered their education "Very Worthwhile," while only 3 percent felt their parents considered their education "Not Worthwhile." Fewer than 20 percent said they did not know their parents' opinions. There did not seem to be any significant difference in the responses of the one-year and two-year graduates.

Graduates' Ratings of Counselors

Another opinion question asked the respondents' opinions of the help provided by high school counselors in planning for a job or career. Table 5.3 below gives a summary of the responses of the vocational education graduates from all eight target schools who returned questionnaires.

Table 5.3: A SUMMARY OF THE RATINGS BY 1970 VOCATIONAL EDUCATION GRADUATES, FROM THE EIGHT TARGET SCHOOLS, OF THE VALUE OF COUNSELORS' HELP IN PLANNING FOR A JOB OR CAREER

	Number of Years in Vocational Education					
	One Year		Two Years		Total	
Rating of Counselor	No.	Percent	No.	Percent	No.	Percent
Very Helpful	41	19.81	40	29.85	81	23.75
Somewhat Helpful	49	23.67	33	24.63	82	24.05
Not Very Helpful	60	28.99	21	15.67	81	23.75
I Received No Help	55	26.57	39	29.10	94	27.57
No Response	2	0.97	1	0.75	3	0.88
TOTAL	207	100.00	134	100.00	341	100.00

Almost half of the vocational education graduates who responded indicated that their high school counselors had been very helpful or somewhat helpful while the other half felt they had been of very little or no help. Eleven percent more graduates having two years of vocational education had positive responses to this question, when compared to the one-year vocational graduates.

CHAPTER VI

A COMPARISON OF THE OCCUPATIONAL ACHIEVEMENT OF VOCATIONAL EDUCATION AND NON-VOCATIONAL EDUCATION GRADUATES IN 1970 FROM EIGHT ARKANSAS HIGH SCHOOLS

In this chapter, comparisons will be made between vocational education and non-vocational education graduates. Of the 635 questionnaires returned, 284 were from graduates who had no vocational education courses. These are called the control group. The vocational graduates who had at least four semesters (two years) of vocational courses are called the experimental groups. One hundred thirty-four graduates in this group returned questionnaires. The graduates who had one, two, or three semesters of vocational education courses are not considered in either of the groups analyzed in this chapter.

The numbers reported in the various tables below vary because of the information reported. For example, some tables report data on those presently employed only. Also, slight discrepancies exist in the numbers because specific data are not available from a few questionnaires.

The proportion of male-female and black-white graduates in the two groups is reported first. Next, the grade-point averages for the two groups are compared. These factors must be considered in the interpretation of all comparative data reported in this chapter.

Proportion of Male and Female Graduates

The number and percent of male and female graduates in each of the comparison groups, for all eight target schools, are presented in Table 6.1.

Table 6.1: A SUMMARY OF THE NUMBER AND PERCENT OF MALE AND FEMALE GRADUATES RETURNING QUESTIONNAIRES, FROM THE EIGHT TARGET SCHOOLS, BY COMPARISON GROUPS

	Male				Female			
	Control		Experimental		Control		Experimental	
School	No.	Percent	No.	Percent	No.	Percent	No.	Percent
Blytheville	17	56.67	8	80.00	13	43.33	2	20.00
El Dorado	16	61.54	1	8.33	10	38.46	11	91.67
Fayetteville	7	100.00	3	11.11	0	0.00	24	88.89
Little Rock Hall	45	70.31	0	0.00	19	29.69	3	100.00
Little Rock Metropolitan	2	66.67	28	53.85	1	33.33	24	46.15
Little Rock Central	42	42.86	1	33.33	56	57.14	2	66.67
Little Rock Horace Mann	7	31.82	4	66.67	15	68.18	2	33.33
Texarkana	12	35.29	17	80.95	22	64.71	4	19.05
TOTAL	148	52.11	62	46.27	136	47.89	72	53.73

The data in Table 6.1 above indicate extreme variations in the percent of males and females within the two groups. For example, the experimental group from Little Rock Hall has no males, while the control group from Fayetteville has no females. The important question, however, is whether there are significant differences in the proportion of males and females in the total numbers in the comparison groups. Table 6.2 below gives a statistical comparison, by use of chi square, of the total number of males and females in the two groups.

Table 6.2: A COMPARISON OF THE PROPORTION OF MALES AND FEMALES IN THE VOCATIONAL AND NON-VOCATIONAL GRADUATES OF 1970 WHO RETURNED QUESTIONNAIRES FROM THE EIGHT TARGET SCHOOLS

	Male		Female		
Groups Compared	No.	Percent	No.	Percent	X^2
Control vs.	148	52.11	136	47.89	1.24
Experimental	62	46.27	72	53.73	

When the totals for all eight schools are considered, there are no significant differences in the ratio of males and females in the control versus experimental groups.

Proportion of Black and White Graduates

Table 6.3 below presents a summary of the total number of black and white graduates in each group who returned questionnaires.

Table 6.3: A SUMMARY OF THE NUMBER AND PERCENT OF BLACK AND WHITE GRADUATES RETURNING QUESTIONNAIRES, FROM THE EIGHT TARGET SCHOOLS, BY COMPARISON GROUPS

	White				Black			
	Control		Experimental		Control		Experimental	
School	No.	Percent	No.	Percent	No.	Percent	No.	Percent
Blytheville	27	90.00	10	100.00	3	10.00	0	0.00
El Dorado	24	92.31	11	91.67	2	7.69	1	8.33
Fayetteville	7	100.00	27	100.00	0	0.00	0	0.00
Little Rock Hall	62	96.88	3	100.00	2	3.13	0	0.00
Little Rock Metropolitan	3	100.00	50	96.15	0	0.00	2	3.85
Little Rock Central	82	83.67	3	100.00	16	16.33	0	0.00
Little Rock Horace Mann	0	0.00	0	0.00	22	100.00	6	100.00
Texarkana	27	79.41	14	66.67	7	20.59	7	33.33
TOTAL	232	81.69	118	88.06	52	18.31	16	11.94

The data shown in Table 6.3 above indicate that the variations in the numbers of black and white graduates are extreme, when the different schools are compared. One school, Little Rock Horace Mann, had no white graduates returning questionnaires, and one school, Fayetteville, had no black graduates reporting. The largest number, in any one group from a single school, returning questionnaires, was 82; from some groups there were no returns, or only one or two.

Statistical comparisons of the proportion of black and white graduates in the two groups are possible only on the totals from all eight schools. Table 6.4 below presents the numbers, percentages, and chi square values obtained when the totals were compared.

Table 6.4: A COMPARISON OF THE PROPORTION OF BLACK AND WHITE 1970 VOCATIONAL AND NON-VOCATIONAL EDUCATION GRADUATES FROM THE EIGHT TARGET SCHOOLS

	Black		White		
Groups Compared	No.	Percent	No.	Percent	X^2
Control vs.	52	18.31	232	81.69	2.71*
Experimental	16	11.94	118	88.06	

*Significant at the .10 level

The data given in Table 6.4 above indicate that, overall, a greater proportion of the vocational education graduates returning questionnaires were white than in the control group. The difference in proportion is significant at the 10 percent level; that is, a difference of this size could happen by chance in one case out of ten.

Comparison of Graduates' Grade Point Averages

Another important factor in the interpretation of data obtained from the comparison groups is the level of achievement while in school. The measure of achievement compared is the graduates' overall grade-point average while in high school. As mentioned in Chapter 3, page 33, the grade points are based upon a four-point system. That is, an "A" counts four points, a "B" three points, etc.

Table 6.5 below gives a summary of the grade-point averages for all graduates, from the eight target schools, in the two comparison groups.

Table 6.5: A SUMMARY OF HIGH SCHOOL GRADE-POINT AVERAGES OF THE 1970 GRADUATES FROM THE EIGHT TARGET SCHOOLS WHO RETURNED QUESTIONNAIRES, BY COMPARISON GROUPS

Range of Grade-Point Averages	GROUPS			
	Control		Experimental	
	No.	Percent	No.	Percent
3.51 - 4.00	3	1.06	3	2.24
3.01 - 3.50	10	3.52	11	8.21
2.51 - 3.00	23	8.10	22	16.42
2.01 - 2.50	85	29.93	43	32.09
1.51 - 2.00	117	41.20	34	25.37
Below 1.50	46	16.20	21	15.67
TOTAL	284	100.00	134	100.00

The data given in Table 6.5 above show that a higher percent of vocational education graduates returning questionnaires had grades above the "C" level (2.01 and above) than did those in the control group who returned questionnaires. For a more detailed analysis of the grade-point averages, each group was divided into two levels, those above "C" and those "C" and below. Chi square was then used to compare the proportion of graduates in the two groups having averages at the different levels. Table 6.6 below shows the number and percent in each group having grade point averages above the "C" level and at and below the "C" level, and the chi square value.

Table 6.6: A SUMMARY, BY COMPARISON GROUPS, OF THE GRADUATES HAVING GRADE POINT AVERAGES ABOVE "C" AND "C" AND BELOW

Grade Point Average Range	Groups				Chi Square
	Control		Experimental		
	No.	Percent	No.	Percent	
2.01 - 4.00	121	42.60	79	58.96	9.75*
2.00 and Below	163	57.40	55	41.04	

*Significant at the .01 level.

The data presented in Table 6.6 above indicate that of the graduates returning questionnaires, a significantly greater proportion of the experimental students had higher grade point averages. This is to be expected, however, since those graduates with high grade point averages who planned to go to college did not receive questionnaires.

Data obtained from questionnaires from these two groups should be interpreted in light of the following facts from the tables given previously in this chapter:

1. There is no significant difference in the proportion of male and female respondents in the control and experimental groups.
2. There is no significant difference, at the .01 or .05 level, in the proportion of black and white respondents in the two groups.
3. There is a significantly higher proportion of graduates in the experimental group with higher grades than in the control group. Fifty-nine percent of the experimental group has grade-point averages 2.01 and above, compared to 42.6 percent of the control group in that range.

Comparison of Graduates' Present Status

In studying the occupational achievement of graduates, one of the first factors to be considered is their present status. Table 6.7 below gives a comparison of the questionnaire responses concerning present occupational status.

Table 6.7: A SUMMARY OF THE OCCUPATIONAL STATUS OF 1970 GRADUATES FROM THE EIGHT TARGET SCHOOLS WHO RETURNED QUESTIONNAIRES, BY COMPARISON GROUPS

	Control		Experimental		
Occupational Status	No.	Percent	No.	Percent	X^2
Working Full Time	176	61.97	86	64.18	
Working Part Time	8	2.82	2	1.49	
In Military Service	15	5.28	8	5.97	
Attending Vocational School	2	0.70	0	0.00	
Attending College	43	15.14	16	11.94	
Housewife	23	8.10	15	11.19	
Unemployed and Other	17	5.99	7	5.23	
TOTAL	284	100.00	134	100.00	3.47

The data in Table 6.7 indicate that more than 60 percent in each group are working full time. There are no significant differences in the proportion of graduates in each group in the various occupational status categories.

Number of Jobs Held Since Graduation

Another factor usually considered in the study of occupational achievement is the number of different jobs held during a specified period of time. The questionnaire used in this study asked respondents to indicate the number of full-time and part-time jobs they had held since their graduation in 1970. Table 6.8 below gives a summary of the responses of graduates from the eight target schools, on the number of full-time jobs held.

Table 6.8: A SUMMARY OF THE NUMBER OF FULL-TIME JOBS HELD SINCE GRADUATION BY GRADUATES FROM THE EIGHT TARGET SCHOOLS, BY COMPARISON GROUPS

Number of Jobs Held	Control		Experimental		X^2
	No.	Percent	No.	Percent	
None	36	12.68	10	7.46	
One	80	28.17	38	28.36	
Two	72	25.35	34	25.37	
Three	47	16.55	34	25.37	
Four or More	49	17.25	17	12.69	
No Response	0	0.00	1	0.75	
TOTAL	284	100.00	134	100.00	9.23

The data given in Table 6.8 above indicate that there are few differences in the proportion of full-time jobs held by the two groups when the categories are compared one by one. However, when combined, the chi square value of 9.23 indicates that the difference approaches significance at the .10 level. The control group has has proportionately fewer full-time jobs.

Table 6.9 below presents the summary information on the number of part-time jobs held by graduates from the eight target schools.

Table 6.9: A SUMMARY OF THE NUMBER OF PART-TIME JOBS HELD SINCE GRADUATION BY GRADUATES FROM THE EIGHT TARGET SCHOOLS, BY COMPARISON GROUPS

	Control		Experimental		
Number of Jobs Held	No.	Percent	No.	Percent	X^2
None	122	42.96	66	49.25	
One	67	23.59	39	29.10	
Two	47	16.55	20	14.93	
Three or More	47	16.55	8	5.98	
No Response	1	0.35	1	0.75	
TOTAL	284	100.00	134	100.00	10.08*

*Significant at the .05 level

The data given in Table 6.9 above indicate that there is a significant difference in the number of part-time jobs held by members of the two groups. The non-vocational group has had proportionately more part-time jobs.

Length of Time in Jobs

A similar question concerns the length of time workers have stayed with the different jobs held since graduation. The questionnaire elicited information on the longest and shortest time spent on the jobs held by each respondent. Table 6.10 below presents data comparing the responses to the question, of vocational and non-vocational education graduates.

Table 6.10: A COMPARISON OF THE LENGTH OF TIME JOBS HAVE BEEN HELD BY 1970 GRADUATES FROM THE EIGHT TARGET SCHOOLS

	Duration of Shortest Job					Duration of Longest Job				
	Control		Experimental			Control		Experimental		
Length of Time on Job	No.	Percent	No.	Percent	X^2	No.	Percent	No.	Percent	X^2
Less than 6 Months	126	44.37	51	38.06	--	92	32.39	60	44.78	--
6 Months to 1 Year	46	16.20	28	20.90	--	47	16.55	17	12.69	--
1 Year to 18 Months	15	5.28	11	8.21	--	49	17.25	23	17.16	--
18 Months to 2 Years	11	3.87	4	2.99	--	32	11.27	13	9.70	--
More than 2 Years	36	12.68	20	14.93	--	31	10.92	11	8.21	--
No Response	50	17.61	20	14.93	--	33	11.62	10	7.46	--
TOTAL	284	100.00	134	100.00	4.18	284	100.00	134	100.00	7.13

The first observation on the data in Table 6.10 above is that many graduates did not respond to this question. Perhaps the item or instructions were not clear. Of those who did respond, there were no significant differences in the responses of the vocational and non-vocational graduates, as indicated by the chi square values given in the table.

Type of Jobs Held at Present

The respondents to the questionnaire were asked to indicate the type of work they are engaged in at the present time. Examples were given to help them classify their jobs. Table 6.11 below presents a comparison of the vocational and non-vocational education graduates from all eight target schools, as to the type of jobs presently held.

Table 6.11: A COMPARISON OF THE TYPES OF JOBS PRESENTLY HELD BY 1970 GRADUATES FROM THE EIGHT TARGET SCHOOLS WHO RETURNED QUESTIONNAIRES

	Control		Experimental		
Type of Job	Number	Percent	Number	Percent	X^2
Trade and Industrial	40	19.23	39	40.63	
Distribution and Marketing	4	21.15	11	11.46	
Office Occupations	63	30.29	22	22.92	
Health Occupations	16	7.69	11	11.46	
Agriculture	2	0.96	1	1.04	*
Home Economics	44	1.92	1	1.04	*
Other	38	18.27	10	10.42	
No Response	1	0.48	1	1.04	*
TOTAL	208	100.00	96	100.00	19.85**

*Not included in computation of chi square.
**Significant at the .01 level

Table 6.11 above contains data which indicate that there is a significant difference in the type of jobs presently held by respondents in the vocational and non-vocational groups. Analysis of the categories reveals that the difference is due to the significantly greater proportion of vocational graduates employed in jobs in the trade and industrial area.

Level of Jobs Held at Present

The responses of graduates who are presently employed were analyzed to compare the number of vocational and non-vocational education graduates in various types of jobs as classified in the Dictionary of Occupational Titles. The questionnaire provided space for respondents to write their job title and to describe briefly the work done. Based upon these two responses, a DOT job classification code was assigned to each job. Table 6.12 below presents a summary of the comparisons.

Table 6.12: A COMPARISON OF THE OCCUPATIONAL LEVEL OF JOBS HELD BY VOCATIONAL AND NON-VOCATIONAL EDUCATION GRADUATES FROM THE EIGHT TARGET SCHOOLS

	Control		Experimental		
Occupational Level	No.	Percent	No.	Percent	X^2
Professional, Technical, Managerial	41	19.71	19	19.79	
Clerical and Sales	100	48.08	34	35.42	
Service	17	8.17	5	5.21	
Farming, Fishery, Forestry, Related	1	0.48	0	0.00	*
Machine Trades and Structural Work	29	13.94	29	30.21	
Bench Work and Miscellaneous	20	9.62	9	9.38	
TOTAL	208	100.00	96	100.00	12.28**

*Not included in computation of chi square.
**Significant at the .05 level.

The data shown in Table 6.12 above indicate that there are significant differences in the jobs held by members of the two groups when the jobs are classified according to the Dictionary of Occupational Titles. Analysis of the individual categories shows that proportionately fewer vocational graduates are in clerical and sales jobs and more are in machine trades and structural work, when compared to the control group.

Relation of Present Job to High School Training

One question on the questionnaire asked the graduates how closely related their present job is to their high school training. The responses to this question, for the two groups from the eight target schools, are summarized and compared in Table 6.13 below.

Table 6.13: A COMPARISON OF THE OPINIONS OF VOCATIONAL EDUCATION AND NON-VOCATIONAL EDUCATION GRADUATES FROM EIGHT TARGET SCHOOLS ON HOW CLOSELY RELATED THEIR PRESENT JOBS ARE TO THEIR HIGH SCHOOL TRAINING

The Relationship	Control		Experimental		X^2
	No.	Percent	No.	Percent	
No relation I can see	92	44.23	33	34.38	
Almost completely unrelated	39	18.75	12	12.50	
Somewhat related	57	27.40	24	25.00	
Closely related	11	5.29	9	9.38	
Directly and very closely related	9	4.33	17	17.71	
No Response	00	0.00	1	1.04	*
TOTAL	208	100.00	96	100.00	18.71**

*Not included in computation of chi square.
**Significant at the .01 level.

The data presented in Table 6.13 above show that there are significant differences in the extent to which graduates in the two groups consider their present jobs related to their high school training. A much higher percent of vocational education graduates indicated that their present jobs are related to their high school training. Sixty-three percent of the control group indicated that there was "No relation I can see," or "Almost completely unrelated," compared to 47 percent of the vocational graduates in these two categories. The greatest difference in any one category is in "Directly and very closely related." Almost 18 percent of the vocational education graduates' responses were in this category, compared to four percent of the control group.

Methods of Obtaining Present Jobs

Another item on the questionnaire was designed to secure information as to how the graduates obtained their present jobs. Table 6.14 below summarizes the responses of those presently employed who returned questionnaires from all eight target schools.

Table 6.14: A SUMMARY OF THE METHODS USED BY 1970 GRADUATES IN THE EIGHT TARGET SCHOOLS TO OBTAIN THEIR PRESENT JOBS

Method of Obtaining Job	Control		Experimental		X^2
	Number	Percent	Number	Percent	
Direct Application	103	49.52	41	42.71	
Newspaper Advertisement, Employment Agencies	28	13.46	13	13.53	
Through school or college	14	6.73	11	11.46	
Family and Friends	45	21.63	22	22.92	
No Response	18	8.65	9	9.38	
TOTAL	208	99.99	96	100.00	2.52

The data in Table 6.14 above reveal that 69 percent of the graduates in both groups combined obtained their jobs either through direct application or through the help of family and friends. Chi square was used to determine if there were any differences in the methods used by vocational and non-vocational education graduates. Because some of the numbers in certain categories are small, some categories were combined to compute chi square. The greatest difference in the groups, as indicated by the percentages was in the "Direct Application" category. The chi square value indicates that there was no significant difference.

Job Satisfaction

To gather data on the extent to which the 1970 graduates are satisfied with their present jobs, an item was included in the questionnaire asking respondents to indicate on a four-point scale, from "Very Satisfied" to "Very Dissatisfied," their feelings on seven different aspects of their jobs, and overall job satisfaction. (See item number 22 in the questionnaire found in the Appendix).

A computer program was written to have the coded responses for each group printed out, showing the number and percent in each group in each category, on each job condition. The result was a series of 27 computer printouts, one for each of the three groups in the eight schools and a totals table for each of the three groups. Table 6.15 below presents the summary data for all eight target schools. The number and percent in each category for each of the job conditions are shown, and chi square values for comparison of differences.

Table 6.15: A COMPARISON OF THE EXTENT OF SATISFACTION WITH PRESENT JOBS EXPRESSED BY THE 1970 VOCATIONAL AND NON-VOCATIONAL GRADUATES FROM THE EIGHT TARGET SCHOOLS

Job Conditions	Very Satisfied		Satisfied		Dis-satisfied		Very Dis-satisfied		X^2
	No.	%	No.	%	No.	%	No.	%	
The Work You Do									
Experimental	53	55.21	38	39.58	3	3.13	2	2.08	1.72
Control	108	51.92	79	37.98	14	6.73	6	2.88	
The People With Whom You Work									
Experimental	46	47.92	46	47.92	2	2.08	2	2.08	0.87
Control	93	44.71	100	48.08	12	5.77	2	0.96	
The Supervision You Receive									
Experimental	45	46.88	37	38.54	9	9.38	5	5.21	0.17
Control	94	45.19	83	39.90	19	9.13	8	3.85	
The Appreciation Received									
Experimental	37	38.54	43	44.79	10	10.42	6	6.25	3.20
Control	90	43.27	71	34.13	33	15.87	10	4.81	
The Promotions Available									
Experimental	30	31.25	39	40.63	15	15.63	11	11.46	1.46
Control	69	33.17	69	33.17	42	20.19	23	11.06	
The Pay You Receive									
Experimental	30	31.25	51	53.13	5	5.21	10	10.42	3.00
Control	64	30.77	89	42.79	40	19.23	14	6.73	
Working Conditions									
Experimental	40	41.67	47	48.96	5	5.21	3	3.13	0.36
Control	81	38.94	105	50.48	15	7.21	6	2.88	
Overall Job Satisfaction									
Experimental	35	36.46	50	52.08	9	9.38	2	2.08	2.00
Control	87	41.83	89	42.79	23	11.06	6	2.88	

Comparison of the percentages shown in Table 6.15 above indicates that a higher percent of vocational education graduates expressed greater job satisfaction than did non-vocational education graduates. The greatest differences are seen in "The Appreciation Received," "The Pay You Receive," and "Overall Job Satisfaction."

Chi square analyses were made on the totals, to determine if any statistically significant differences exist in the extent to which the respondents in the two groups are satisfied with various aspects of their present jobs. In all groups the majority of responses were in the "Very Satisfied" or "Satisfied" categories. Since, in some cases, there were very few or no responses in the "Dissatisfied" and "Very Dissatisfied" categories, the responses in these two categories were combined for the chi square evaluations. Table 6.15 above also presents the chi square values, comparing the groups against each other for each of the job conditions. The chi square values indicate that there are no significant differences in the degree of job satisfaction expressed by the vocational and non-vocational graduates.

Earnings in Present Job

Perhaps the most concrete measure of occupational achievement is earnings. The graduates were asked, "Approximately how much is your gross pay each week, on your present job?" Responses were made by checking one of the seven categories listed. Six categories listed gross pay in intervals of $25, from "Less than $50 per week" to "$150 or more per week." A seventh category was: "Unable or unwilling to answer." Table 6.16 below presents the comparison of the total responses from all eight target schools.

Table 6.16: A COMPARISON OF THE EARNINGS IN PRESENT JOBS BY 1970 GRADUATES FROM THE EIGHT TARGET SCHOOLS

	Control		Experimental		
Gross Pay Per Week	Number	Percent	Number	Percent	X^2
Less Than $50	9	4.33	3	3.13	
$50 to $74	25	12.02	13	13.54	
$75 to $99	36	17.31	17	17.71	
$100 to $125	44	21.15	14	14.58	
$125 to $149	29	13.94	24	25.00	
$150 or More	54	25.96	21	21.88	
Unable or Unwilling to Answer	11	5.29	4	4.17	
TOTAL	208	100.00	96	100.00	7.07

The information summarized in Table 6.16 above shows that a higher percent of vocational education graduates returning questionnaires are earning $125 per week or more than in the control group. Approximately 47 percent of the vocational graduates have earnings of $125 per week and above, compared to 40 percent of the control group in this range.

However, the chi square value of 7.07, on the total, with six degrees of freedom, indicates that there are no statistically significant differences.

Type of Additional Training

The graduates were asked, "Since leaving school, have you taken any further education or training?" The respondents indicated the type of training, if any, they have had since leaving school. Table 6.17 below gives a summary of the responses, and a comparison of responses from the two groups, from all of the schools combined.

Table 6.17: A COMPARISON OF THE NUMBER AND PERCENT OF 1970 GRADUATES FROM THE EIGHT TARGET SCHOOLS WHO HAVE HAD FURTHER TRAINING SINCE LEAVING SCHOOL

Type of Training	Control		Experimental		X^2
	Number	Percent	Number	Percent	
No Further Education or Training	43	15.14	29	21.64	
Vocational-Technical Training	28	9.86	13	9.70	
Business School	12	4.23	6	4.48	
College	130	45.77	41	30.60	
Military Training	14	4.93	8	5.97	
On-The-Job Training	33	11.62	26	19.40	
Combination of the Above	22	7.75	10	7.46	
No Response	2	0.70	1	0.75	
TOTAL	284	100.00	134	100.00	11.40

The data summarized in Table 6.17 above show that only 15 percent of the control group and only 21 percent of the experimental group have had no post-high school training or education. More than 45 percent of the control group and more than 30 percent of the experimental group returning questionnaires had some college training.

In an overall comparison of the two groups, the chi square value of 11.48 approaches significance at the .05 level. The differences are seen in the greater percent of vocational graduates having no further training, and the greater percent of the control group having some college. The experimental group also had proportionately more graduates having on-the-job training.

CHAPTER VII

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

This chapter presents summary information based upon data given in the preceding chapters. First, information concerning all of the 1970 vocational education graduates from the eight target schools is presented. Then summary data on the occupational activities of the 1970 vocational education graduates who returned questionnaires are given, followed by a summary of findings resulting from a comparison of the two-year vocational education graduates and non-vocational education graduates. The last part of this chapter contains statements of conclusions and implications, based upon the findings.

I. Description of the 1970 Vocational Graduates from the Eight Target Schools

A. Number of Graduates Completing Vocational Education Courses

Of the 2,573 graduates from the eight target schools in 1970, 877 had vocational education courses in the eleventh grade, the twelfth grade, or both eleventh and twelfth grades. Forty-four percent of the 1970 vocational education graduates are male; 56 percent are female. Seventeen percent of them are black, and 83 percent are white.

B. Type of Courses Completed by Vocational Education Graduates

Approximately two-thirds of the vocational education students were in Business or Trade and Industrial courses. Of those having two years of vocational education in the same area, 77 percent were in these two areas. Fewer vocational graduates had training in Health Occupations and Agricultural Education than any other areas.

C. Achievement of Vocational Graduates

As a group, the vocational education graduates had typical grade-point averages. Almost 60 percent had grade-point averages between "C-" and "C+".

II. Occupational Activities of One-Year and Two-Year Vocational Education Graduates

A. Present Status of Vocational Graduates

1. Sixty-four percent of the two-year vocational education graduates are working full-time, compared to 46 percent of the one-year vocational people.
2. Almost 7 percent of the one-year vocational education graduates are unemployed, compared to only 3 percent of the two-year vocational graduates.
3. Twenty percent of the one-year vocational graduates are attending college, compared to only 12 percent of the two-year people.

4. Of the one-year vocational education graduates, the largest percent working full-time were trained in agriculture courses; the largest percent unemployed were trained in trade and industrial courses.
5. None of the one-year vocational education graduates are attending vocational or technical schools.
6. Of the two-year vocational graduates, 43 percent were trade and industrial students, and 27 percent were in business education.
7. Sixty-two percent of the two-year vocational educational graduates who had Agriculture, Distributive Education, Home Economics, and Trade and Industry are working full-time.
8. The highest percentages of two-year graduates who are now housewives were trained in Health Occupations (37 percent) and Business (21 percent).

Full-Time and Part-Time Jobs Held

A higher percent of two-year vocational graduates have held more full-time jobs than have one-year graduates, while a higher percent of one-year graduates have held more part-time jobs.

C. Length of Time in Jobs

There are no important differences in the length of time spent in various jobs by one-year and two-year vocational graduates. Approximately 14 percent of the graduates have not held any full-time jobs.

D. Types of Jobs Presently Held

A higher percent (41 percent) of two-year graduates are employed in trade and industrial jobs than any other area; of the one-year graduates, a higher percent (35 percent) are employed in office occupation jobs.

E. Level of Jobs Presently Held

When the questionnaire responses concerning jobs presently held were analyzed in terms of the Dictionary of Occupational Titles classifications, little difference in the job level of one-year and two-year vocational graduates was noted. More one-year graduates are employed in clerical and sales jobs, while more two-year graduates are working in machine trades and structural work. Overall, 77 percent of the graduates are employed in one of three job classifications: professional, technical, managerial; clerical and sales; or machine trades.

F. Relation of Jobs to High School Training

1. Thirty-three percent of the one-year vocational graduates and 48 percent of the two-year people are presently employed in jobs in the same area as their training.

2. Among the one-year graduates, the highest percent working in the area of their training are in business occupations; of the two-year people, the highest percent in the area of their training are in the trade and industrial area.

G. Methods of Obtaining Jobs

Approximately two-thirds of the graduates obtained their present jobs through direct application or by help received from relatives and friends. There is little difference in the methods used by one-year and two-year vocational graduates.

H. Job Satisfaction

Nearly 90 percent of the graduates, both one-year and two-year vocational people, are satisfied or very satisfied with most aspects of their jobs. They expressed the greatest satisfaction with the people with whom they work and the working conditions. Least satisfaction was expressed in relation to the appreciation received and the promotions available.

I. Earnings in Present Jobs

More than half of the graduates returning questionnaires are making $100 per week or more. A higher percent of two-year graduates than one-year people are making $125 or more per week.

J. Further Education and Training

Few differences exist in the percent of one-year and two-year graduates who have had additional education and training since leaving high school. A higher percent of one-year people have had some college, and a slightly higher percent of two year people have had on-the-job training. Overall, about 40 percent of the graduates have had some college training, while nearly 19 percent have had no additional education or training.

K. Type of Further Training

When asked what kind of additional training they had after high school, more than 60 percent of the graduates indicated that this question did not apply to them. Of those who responded, only 13 percent indicated that they had continued with training begun in high school. There was very little difference in the percent of responses made by the one- and two-year graduates.

III. Vocational Graduates' Evaluation of Their High School Training

A. Relation of Present Job to High School Training

Over half (53) percent of the vocational education graduates feel that their present job is somewhat related or closely and directly related to their high school training. There was little difference in the responses of one-year and two-year vocational graduates.

B. Parents' Opinion of Graduates' High School Education

Sixty-six percent of the graduates indicated that their parents considered their high school training "Very Worthwhile," and an additional 17 percent considered it "Somewhat Worthwhile." Only 3 percent said "Not Worthwhile." There was very little difference in the responses of one-year and two-year vocational graduates.

C. Ratings of Counselors

Almost half of the vocational respondents indicated that their counselors had been "Very Helpful" or "Somewhat Helpful" in their planning for a job or career. A higher percentage of two-year vocational graduates responded positively to the question than one-year vocational graduates.

IV. Comparison of Occupational Achievement of Vocational and Non-Vocational Education Graduates

A. Comparison of the Characteristics of the Two Groups of Graduates

1. The control group is made up of 284 graduates returning questionnaires who had no vocational education courses. Those having four semesters or more who returned questionnaires, (134 graduates) make up the experimental group.
2. When the totals for all eight target schools are combined, there are no significant differences in the ratio of males and females in the vocational and non-vocational groups. The chi square value is 1.24, with one degree of freedom. There were considerable differences, however, in the male-female proportions within individual schools.
3. When the proportions of white and black graduates in the two groups were compared, it was found that 88 percent of the vocational graduates who returned questionnaires were white, while almost 82 percent of the control group were white. The chi square value of 2.71 indicates that the difference is statistically significant at the .10 level of confidence. There was considerable variation in the racial distribution within individual schools.

4. A significantly greater proportion of the vocational graduates had higher grade point averages. Fifty-nine percent of the vocational graduates had grade point averages above 2.00, ("C"), compared to 43 percent of the control group (non-vocational graduates). The chi square value of 9.75 with one degree of freedom indicates a statistically significant difference at the .01 level of confidence.
5. CAUTION MUST BE USED IN THE INTERPRETATION OF THE FOLLOWING FINDINGS, SINCE THERE ARE SIGNIFICANT DIFFERENCES IN THE GRADE POINT AVERAGES, AND THE DIFFERENCE IN THE RATIO OF BLACK AND WHITE RESPONDENTS APPROACHES SIGNIFICANCE.

B. Comparison of Graduates' Present Status

When the two groups were compared on present occupational status (such as working full-time, attending college, etc.), no significant differences were found in the proportion of vocational and non-vocational education graduates in the various occupational status categories. This is shown by a chi square value of 3.47, with four degrees of freedom.

C. Number of Jobs Held Since Graduation

The vocational education graduates have held proportionately more full-time jobs since graduation than the control group, and proportionately fewer part-time jobs. The differences in the groups are not significant on full-time jobs. However, on part-time jobs held, the differences are statistically significant.

D. Length of Time in Jobs

There are no significant differences in the length of time spent in various jobs by vocational and non-vocational education graduates.

E. Types of Jobs Held at Present

The chi square value of 19.85, with five degrees of freedom, indicates a significant difference, at the .01 level, in the proportion of vocational and non-vocational graduates in various types of jobs presently held. The difference is due to a much greater proportion of vocational graduates presently employed in jobs in the trade and industrial area.

F. Level of Jobs Held at Present

There are proportionately fewer vocational education graduates in clerical and sales jobs than non-vocational education graduates. On the other hand, there are significantly more of the vocational people in machine trades and structural work. The differences, overall, are statistically significant at the .05 level, with a chi square value of 12.28, with four degrees of freedom.

G. Relation of Present Job to High School Training

A significantly greater proportion of vocational education graduates consider their present jobs related to their high school training than do non-vocational graduates. Fifty-two percent of the vocational graduates indicated that their present job is

"Somewhat Related," "Closely Related," or "Directly and Very Closely Related" to their high school training, compared to 37 percent of the control group in these categories.

The overall chi square value, with four degrees of freedom, is 18.71; this is significant at the .01 level.

H. Methods of Obtaining Jobs

Seventy-one percent of the vocational education graduates presently employed, and 66 percent of the control group obtained their jobs by direct application or with the help of family or friends. There are no significant differences in the methods used by the two groups in obtaining jobs.

I. Job Satisfaction

The vocational education graduates expressed greater satisfaction with certain aspects of their jobs than non-vocational graduates. The greatest differences were in the categories, "The Appreciation Received," and "The Pay You Receive." However, chi square analyses revealed that these differences were not statistically significant.

J. Earnings in Present Job

Forty-seven percent of the vocational graduates are earning $125.00 or more per week, compared to 40 percent in the control group in this range. However, the chi square value of 7.07, with six degrees of freedom, indicates that there are no statistically significant differences.

K. Type of Additional Training

A greater percent of vocational education graduates have had "No further education or training" than have the control group. A greater proportion of the control group has had some college training, while a greater percent of the vocational people have had on-the-job training. However, in neither case is the difference statistically significant.

V. Conclusions and Recommendations

A. The prestige of a college education seems to be a strong motivating factor in the plans of Arkansas high school students, as only 15 percent of the students graduating from the target schools in 1970 completed two years of vocational education.

It is recommended that the state education agency take a leadership role in providing information to high school counselors and students on the training opportunities for the non-college bound student, and in the career opportunities available to them.

B. The number of vocational education programs being offered in the schools studied is open to question. While six different kinds of vocational education programs are offered in the schools involved in the study, over 75 percent of the students who completed two years of study, in the eleventh and twelfth grades, were enrolled in two program areas: Trade and Industrial, and Business. Some program areas, Agricultural Education and Health Occupations, had very limited enrollments.

It is recommended that the state education agency provide the local schools guidelines on feasible per-pupil-costs for each of the six vocational areas.

C. The typical vocational education student is a white male or female with an average academic record, enrolled in a business or trade and industrial course. Each school district should develop a positive counseling and guidance program to encourage more black students to enroll in vocational education courses.

D. Two years of vocational education training appears to be desirable for students who plan to work after completing their high school education, as more two-year vocational graduates are employed full-time than one-year graduates, have held more full-time jobs, are earning more than one-year graduates, and more are working in the area for which they were trained.

E. It appears that students who completed only one year of vocational education took vocational courses as electives rather than for job preparation, as many of them went to college or are in jobs requiring a limited amount of training.

This suggests that for courses to be considered as a vocational course, designed to provide students with skills needed for job entry, the student should complete a three-hour block for two years in that area.

F. Based upon data on the occupational status of one-year and two-year vocational graduates, it seems that the schools have limited success in training students for entry into jobs, as less than one-half of the students completing two years of vocational education are working in jobs in the area for which they were trained.

It is recommended that local education agencies study the relationship of their offerings to the job market in their area and/or implement a vigorous placement program.

G. It is extremely difficult to obtain comparable groups of vocational graduates and non-vocational graduates by using a follow-up questionnaire technique. In this study, a biased return occurred in favor of the white students, and students with a higher achievement record.

It is suggested that in future studies, a representative sample of students to be followed be selected during their senior year in high school. In this way a stratified, representative sample could be selected representing groups involving all important variables to be studied.

H. It appears that two-year vocational education graduates have greater occupational achievement than non-vocational graduates, as seen in job satisfaction, amount of earnings, and frequency of full-time jobs held. While these differences are in favor of the vocational graduates, in terms of percentages, some of the differences are not statistically significant.

It is recommended that: (a) future studies be designed to determine the relationship between vocational education training, size of high school, high school grade-point average, and size of community, background of students, and occupational achievement; and (b) that a second follow-up study be conducted on the subjects of this study six years after graduation to determine if the difference in the occupational achievement of the two groups is statistically significant.

I. Vocational education graduates have a greater chance than non-vocational graduates of finding full-time work they consider to be more closely related to their high school training. It is recommended that the vocational education offerings be closely related to the job opportunities available in the area.

J. There was no significant difference in the amount and kind of post-secondary school training completed by the vocational and non-vocational education graduates. This suggests that (1) there is little or no coordination of vocational and technical training offered by secondary schools and the post-secondary vocational-technical schools, or (2) that vocational graduates have received sufficient training in high school to be placed in jobs.

It is suggested that a study be conducted to determine who attends the area vocational and technical schools, which high schools they attended, and how post-secondary vocational education training can be coordinated with high school programs, and how both can be developed to meet the needs of business and industry.

Appendix A: TOTAL EXPENDITURES FOR VOCATIONAL-TECHNICAL EDUCATION FROM FEDERAL AND MATCHING FUNDS FOR THE UNITED STATES AND ARKANSAS DURING THE FISCAL YEARS OF 1968, 1969, AND 1970

U.S. or Arkansas	Fiscal Year	Total	Federal	State and Local		
				Total	State	Local
U. S.	1968	$1,192,862,965	$262,383,716	$ 930,479,249	$400,362,023	$530,117,226
	1969	1,368,756,523	254,676,376	1,114,080,147	467,172,881	646,907,266
	1970	1,841,846,345	300,045,568	1,541,800,777		
Arkansas	1968	9,612,715	3,439,504	6,173,211	3,051,541	3,121,670
	1969	10,157,277	3,404,568	6,752,709	3,088,904	3,663,805
	1970	11,308,000	3,718,000	7,590,000		

APPENDIX B

A Copy of the Questionnaire Used in the Vocational Study

Dear Former Student:

We at   are trying to improve our instructional program and need your help. We need your help in determining the extent that our school programs are preparing you for the world of work. We also would like to know how you are doing in your career choice. This information will be very helpful to us in improving our courses or adding other courses to our curriculum. Your answers and the information will be kept in strict confidence. All published data will be for the entire group of students or for the students in the entire school system. Individual names will not be mentioned in any reports.

Will you please complete the following questionnaire and return it in the self-addressed stamped envelope to Educational Planning and Evaluation Services who are tabulating our data. Your assistance and prompt reply will be greatly appreciated.

Sincerely yours,

vec
Enclosures

NAME:____
First Middle Maiden Last

Part I - To be filled out by all graduates
Part II - To be filled out by graduates presently employed
Part III - To be filled out by graduates who have worked but are not presently employed

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Directions: Please read each question and select from the lettered statements the one that answers the question for you. Write the letter of your answer in the space provided by each number. Please select one answer for each item.

PART I - TO BE COMPLETED BY ALL GRADUATES

1.____ Where did you graduate from high school?

A. Blytheville
B. El Dorado
C. Fayetteville
D. Little Rock
E. Texarkana

2.____ What is your sex?

A. Male
B. Female

3.____ What is your marital status?

A. Single
B. Married

4.____ To what racial group do you belong?

A. White
B. Black
C. Other

5.____ What is your primary status at present?

A. Employed
B. In military service
C. Attending vocational school
D. Attending college
E. Housewife
F. Unemployed
G. Other (Specify:______________)

6.____ If you have never been employed, what do you consider as the main reason?

A. This question does not apply to me
B. Not looking for a job
C. No job available
D. High school training was not adequate
E. Marriage
F. Personal reasons (illness, family problems, etc.)
G. Other reason (Specify:__________)

7.____ How many full-time jobs have you held since graduating from high school?

A. None
B. One
C. Two
D. Three
E. Four or more

8.____ What is the longest time you have held a full-time job since graduating from high school?

A. More than 2 years
B. 18 months to 2 years
C. 1 year to 18 months
D. 6 months to 1 year
E. Less than 6 months
F. Have not held full-time job

9.____ What is the shortest duration of any full-time job you have had since graduating from high school?

A. Less than 6 months
B. 6 months to 1 year
C. 1 year to 18 months
D. 18 months to 2 years
E. More than 2 years
F. Have not held full-time job

10.____ How many part-time jobs have you held since graduating from high school?

A. None
B. One
C. Two
D. Three
E. Four or more

11.____ What is your parents' opinion of your high school education?

A. Very worthwhile
B. Somewhat worthwhile
C. Not worthwhile
D. Don't know parent's opinion

12.____ What is your opinion of the help you received from high school counselors in planning for a job or career?

A. Very helpful
B. Somewhat helpful
C. Not very helpful
D. I received no help

13.____ Since leaving high school, have you taken any further education or training?

A. No further education or training
B. Vocational-technical training
C. Business school
D. College
E. Military training
F. On-the-job training

14.____ If you attended vocational-technical school, business school, or on-the-job training after graduation, what sort of courses did you take?

A. Continued with training I began in high school
B. Took training entirely different from my high school courses
C. This question does not apply to me

15. Please make any comments that you would like to make concerning your high school education (i.e., strong and weak points, courses you wished you had taken, evaluation of your training, etc.)____

____

____

____

DIRECTIONS:

1. If you have never been employed stop here and return questionnaire in self-addressed stamped envelope.

2. If you are now employed, complete Part II. (Blue Sheets)

3. If you are now unemployed, but have worked, skip Part II but complete Part III. (Pink Sheets)

PART II - TO BE COMPLETED BY GRADUATES PRESENTLY EMPLOYED

16.____ What is your present job title? (Such as welder, clerk, printer, machine operator, salesman, forester, draftsman, secretary, beautician)

____

Describe what you do.______________

____

____

____

17.____ What is the status of your present job?

A. Full time
B. Part time

18.____ In which TYPE OF JOB are you now working?

A. Trade and Industrial Occupations (such as carpenter, draftsman, welder, appliance repairman, factory worker, mechanic, etc.)

B. Distribution and Marketing (Such as real estate & insurance salesmen, hotel clerk, salesclerk truck driver, storekeeper, etc.)

C. Office Occupations (such as accountant, secretary, office clerk, PBX operator, etc.)

D. Health Occupations (such as nurses' aide, orderly, dental hygienist, and practical nurse, etc.)

E. Agriculture (such as dairy industry, horticulture, animal or poultry raising, forestry, agricultural sales & services, etc.)

F. Home Economics Occupations (such as cook, seamstress, interior decorator, cafeteria manager, etc.)

G. Other (Specify·________________)

19.____ How did you get your present job?

A. Through direct application
B. Through newspaper advertisement
C. Through private employment agency
D. Helped by public employment agency
E. Helped by high school counselor
F. Helped by high school teacher
G. Helped by vocational department in high school
H. Helped by family or friends
I. Helped by school or college where I had vocational training after high school
J. Other (Specify:______________)

20.____ How long have you worked in your present job?

A. Less than 6 months
B. 6 months to one year
C. One year to 18 months
D. 18 months to 2 years
E. More than 2 years

21.____ How closely related to your high school training is your present job?

A. No relation I can see
B. Almost completely unrelated
C. Somewhat related
D. Closely related
E. Directly and very closely related

22. How satisfied are you with your present job? Place a check in the blank after each of the job conditions below which best tells your feeling about your present job.

JOB CONDITIONS	Very Satisfied	Satisfied	Dis-Satisfied	Very Dissatisfied
The work you do	____	____	____	____
The people with whom you work	____	____	____	____
The supervision you receive	____	____	____	____
The appreciation received for doing a good job	____	____	____	____
The promotions available in your job	____	____	____	____
The pay you receive	____	____	____	____
Working conditions	____	____	____	____
Overall job satisfaction	____	____	____	____

23.____ Approximately how much is your gross pay each week, on your present job?

A. Less than $ 50 per week
B. $ 50 to $ 74 per week
C. $ 75 to $ 99 per week
D. $100 to $124 per week
E. $125 to $149 per week
F. $150 or more per week
G. Unable or unwilling to answer

24. Please rate the high school courses in terms of their value to you in the work you are doing on your present job. (Place a check for each course.)*

	RATING			
Course	Very Helpful	Some Help	No Help	Did Not Take
English				
Science (General Science, Chemistry, Physics)				
Mathematics				
Social Studies (Civics, History, Geography)				
Agriculture				
Distributive Education (D.E.)				
Health Occupations				
Business (Office Education, Cooperative Office Education)				
Home Economics (Food Services, Clothing Services)				
Woodworking				
Drafting				
Automotive Mechanics				
Welding				
Machine Shop				
Electronics				
Building Trades				
Body and Fender				
Appliance Repair				
Cosmetology				
Food Preparation				
Industrial Cooperative Training				
Metal Shop				
Garment Making				
Bricklaying or Masonry				
Printing				

YOU HAVE COMPLETED THE QUESTIONNAIRE

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*The listed courses were a composite of courses offered by all schools involved in the study. Where the course was not offered in a specific school, it was deleted from the questionnaire going to students in that school.

PART III - TO BE COMPLETED BY GRADUATES WHO HAVE WORKED BUT ARE NOT PRESENTLY EMPLOYED

25. ____ What was the job title of your last job? (such as welder, clerk, printer, machine operator, salesman, forester, draftsman, secretary, beautician) ____________________

Describe what you did. ____________

____

____

____

26. ____ What was the status of your last job?

A. Full time
B. Part time

27. ____ In which TYPE OF JOB were you last working?

A. Trade and Industrial Occupations (such as carpenter, draftsman, welder, appliance repairman, factory worker, mechanic, etc.)

B. Distribution and Marketing (such as real estate & insurance salesmen, hotel clerk, salesclerk truck driver, storekeeper, etc.)

C. Office Occupations (such as accountant, secretary, office clerk, PBX operator, etc.)

D. Health Occupations (such as nurses' aide, orderly, dental hygienist, and practical nurse, etc.)

E. Agriculture (such as dairy industry, horticulture, animal or poultry raising, forestry, agricultural sales & services, etc.)

F. Home Economics Occupations (such as cook, seamstress, interior decorator, cafeteria manager, etc.)

G. Other (Specify: ________________)

27. ____ How did you get your last job?

A. Through direct application
B. Through newspaper advertisement
C. Through private employment agency
D. Helped by public employment agency
E. Helped by high school counselor
F. Helped by high school teacher
G. Helped by vocational department in high school
H. Helped by family or friends
I. Helped by school or college where I had vocational training after high school
J. Other (Specify: ______________)

28. ____ How long did you work in your last job?

A. Less than 6 months
B. 6 months to one year
C. One year to 18 months
D. 18 months to 2 years
E. More than 2 years

29. ____ How closely related to your high school training was your last job?

A. No relation I can see
B. Almost completely unrelated
C. Somewhat related
D. Closely related
E. Directly and very closely related

30. ____ What do you consider the main reason for your present unemployment?

A. Not looking for a job
B. No job available
C. High school training was not adequate
D. Marriage
E. Personal reasons (illness, family problems, etc.)
F. Other reason (Specify: ________

____________________)

31. How satisfied were you with your last job? Place a check in the blank after each of the job conditions below which best tells your feeling about your last job.

JOB CONDITIONS	Very Satisfied	Satisfied	Dis-Satisfied	Very Dissatisfied
The work you do	________	________	________	________
The people with whom you work	________	________	________	________
The supervision you receive	________	________	________	________
The appreciation received for doing a good job	________	________	________	________
The promotions available in your job	________	________	________	________
The pay you receive	________	________	________	________
Working conditions	________	________	________	________
Overall job satisfaction	________	________	________	________

32.____ Approximately how much was your gross pay each week on your last job?

A. Less than $ 50 per week
B. $ 50 to $ 74 per week
C. $ 75 to $ 99 per week
D. $100 to $124 per week
E. $125 to $149 per week
F. $150 or more per week
G. Unable or unwilling to answer

24. Please rate the high school courses in terms of their value to you in the work you were doing on your last job. (Place a check for each course.)*

Course	RATING			
	Helpful	Some Help	No Help	Did Not Take
English				
Science (General Science, Chemistry, Physics)				
Mathematics				
Social Studies (Civics, History, Geography)				
Agriculture				
Distributive Education (D.E.)				
Health Occupations				
Business (Office Education, Cooperative Office Education)				
Home Economics (Food Services, Clothing Services)				
Woodworking				
Drafting				
Automotive Mechanics				
Welding				
Machine Shop				
Electronics				
Building Trades				
Body and Fender				
Appliance Repair				
Cosmetology				
Food Preparation				
Industrial Cooperative Training				
Metal Shop				
Garment Making				
Bricklaying or Masonry				
Printing				

YOU HAVE COMPLETED THE QUESTIONNAIRE

*The listed courses were a composite of courses offered by all schools involved in the study. Where the course was not offered in a specific school, it was deleted from the questionnaire going to students in that school.